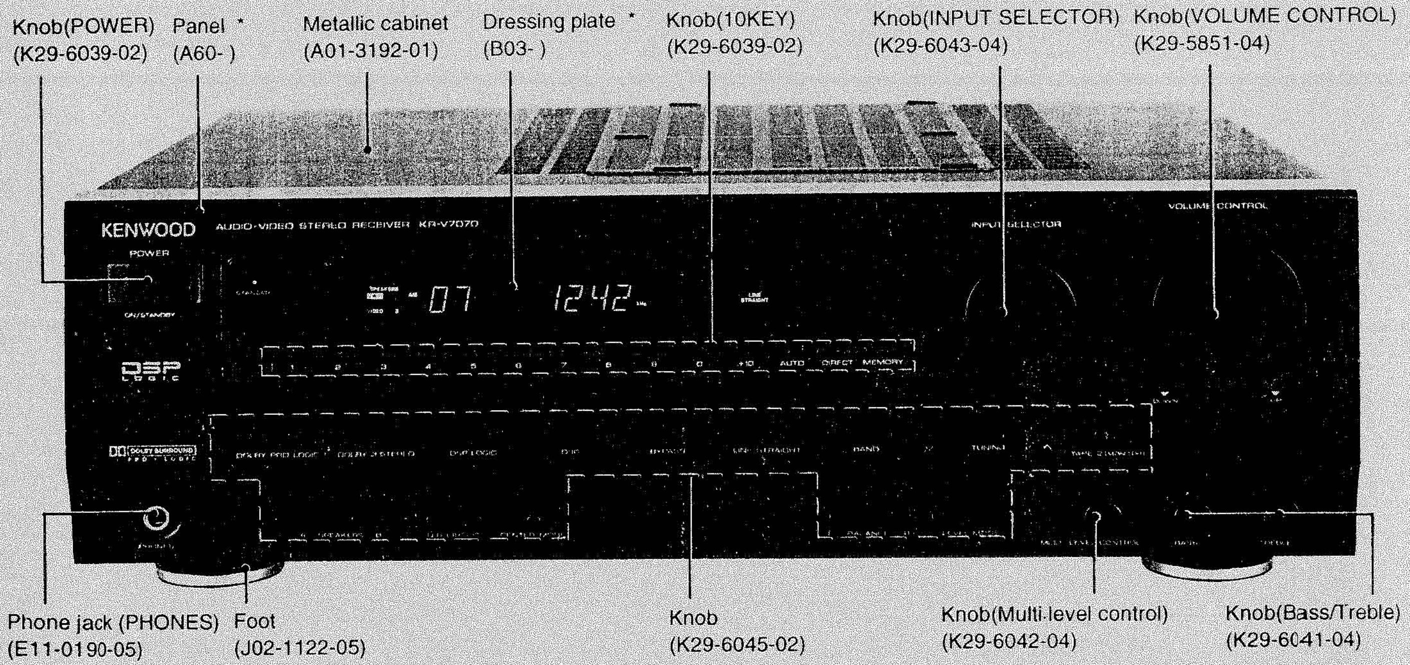
AUDIO-VIDEO STEREO RECEIVER

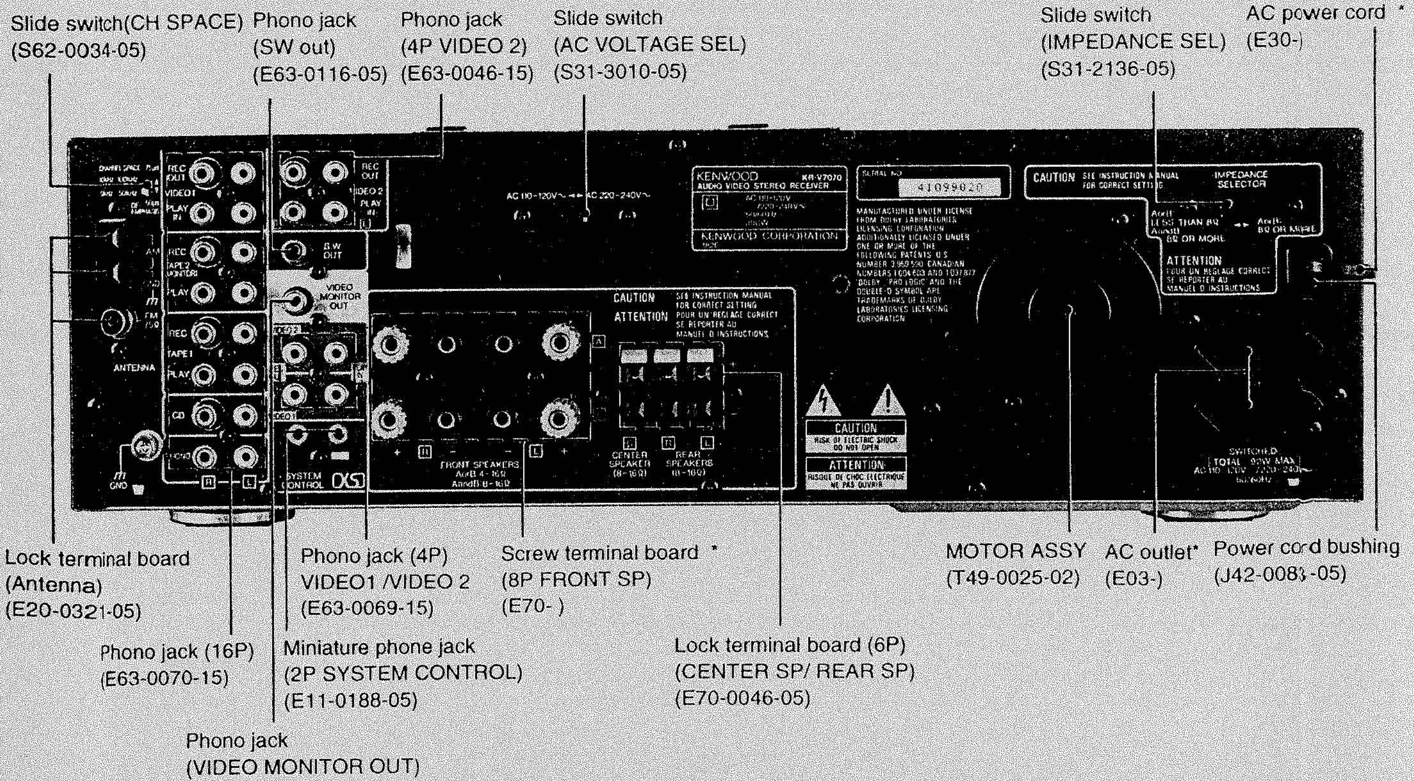
KR-V7070

SERVICE MANUAL

KENWOOD

© 1995-1 PRINTED IN KOREA
B51-5020-00 (S) 3949


Knob(POWER) (K29-6039-02)
Panel * (A60-)
Metallic cabinet (A01-3192-01)
Dressing plate * (B03-)
Knob(10KEY) (K29-6039-02)
Knob(INPUT SELECTOR) (K29-6043-04)
Knob(VOLUME CONTROL) (K29-5851-04)
KENWOOD
AUDIO-VIDEO STEREO RECEIVER KR-V7070
POWER
INPUT SELECTOR
VOLUME CONTROL
Phone jack (PHONES) (E11-0190-05)
Foot (J02-1122-05)
Knob (K29-6045-02)
Knob(Multi-level control) (K29-6042-04)
Knob(Bass/Treble) (K29-6041-04)


Slide switch(CH SPACE) (S62-0034-05)
Phono jack (SW out) (E63-0116-05)
Phono jack (4P VIDEO 2) (E63-0046-15)
Slide switch (AC VOLTAGE SEL) (S31-3010-05)
Slide switch (IMPEDANCE SEL) (S31-2136-05)
AC power cord * (E30-)
Lock terminal board (Antenna) (E20-0321-05)
Phono jack (16P) (E63-0070-15)
Phono jack (VIDEO MONITOR OUT) (E63-0130-05)
Phono jack (4P) VIDEO1 /VIDEO 2 (E63-0069-15)
Miniature phone jack (2P SYSTEM CONTROL) (E11-0188-05)
Screw terminal board * (8P FRONT SP) (E70-)
Lock terminal board (6P) (CENTER SP/ REAR SP) (E70-0046-05)
MOTOR ASSY (T49-0025-02)
AC outlet* (E03-)
Power cord bushing (J42-0083-05)

* Refer to parts list on page 54.

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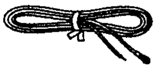
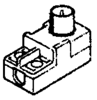
SPECIFICATIONS .... BACK COVER

ACCESSORIES

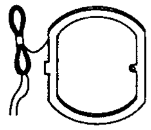
FM indoor antenna ....(1)
(T90-0801-05)



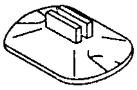
Antenna adaptor ....(1)
(T90-0198-05)



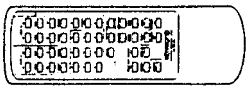
AM loop antenna assy ....(1)
(T90-0195-05)



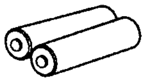
Loop antenna stand
(J19-3645-05)



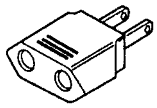
Remote control unit ....(1)
(A70-1009-05):RC-R0704
BATTERY COVER:
(A09-0194-08)



Batteries(R6/AA) ....(2)



AC plug adaptor ....(1)
(E03-0115-05):M only



REMOTE CONTROL UNIT

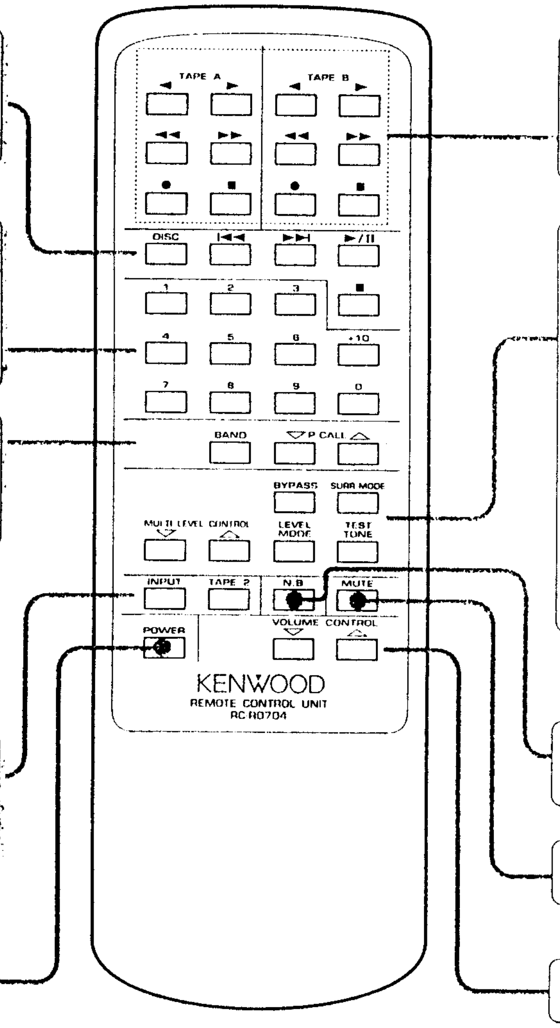
CD player operation keys
DISC: This key is used as the disc selector of a multi-CD player. Each press selects a different disc.

Numeric keys
When the CD input is selected, function as the numeric keys of the CD player. When the TUNER input is selected, function as the numeric keys of the tuner.

TUNER operation keys
BAND:
Selects the broadcast band.
P.CALL:
Recalls preset stations.

INPUT key
Selects the input sources.
TAPE 2 (MONITOR) key
Press to monitor the source being recorded.

POWER key


TAPE A
TAPE B
DISC
1
2
3
4
5
6
+10
7
8
9
0
BAND
P CALL
BYPASS
SURR MODE
MULTI LEVEL CONTROL
LEVEL MODE
TEST TONE
INPUT
TAPE 2
N.B
MUTE
POWER
VOLUME CONTROL
KENWOOD
REMOTE CONTROL UNIT
RC-R0704

Cassette Deck Operation keys
Use to operate both TAPE A and TAPE B of a double cassette deck. To operate a single cassette deck, use only the TAPE B keys.

SURROUND keys
SURR. MODE:
Switches the surround modes.
TEST TONE:
Switches the test tone ON and OFF.
LEVEL MODE:
Selects the item whose presets are to be changed. The item changes each time you press the key.
MULTI LEVEL CONTROL:
Adjusts up or down the presets of the item selected with the LEVEL MODE key.
BYPASS:
Cancels the SURROUND mode.

N.B. key
Use for correct reproduction of natural bass sound.

MUTE key
Mutes the sound temporarily.

VOLUME CONTROL keys
Adjust the listening volume.

Model: RC-R0704
Infrared ray system

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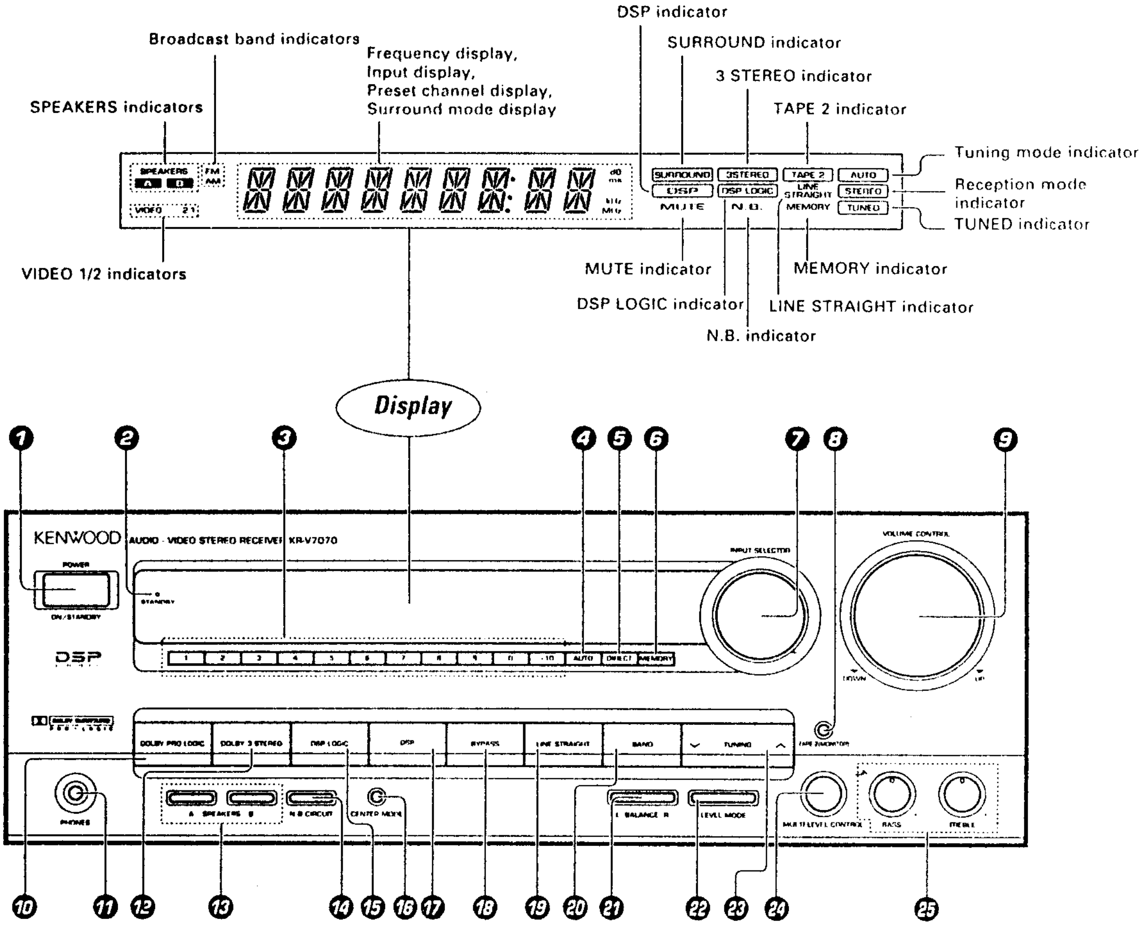
CONTROL UNIT


DSP indicator
Broadcast band indicators
SURROUND indicator
Frequency display,
Input display,
Preset channel display,
Surround mode display
3 STEREO indicator
SPEAKERS indicators
TAPE 2 indicator
Tuning mode indicator
Reception mode indicator
TUNED indicator
VIDEO 1/2 indicators
MUTE indicator
MEMORY indicator
DSP LOGIC indicator
LINE STRAIGHT indicator
N.B. indicator
Display
KENWOOD
AUDIO · VIDEO STEREO RECEIVER KR-V7070
POWER
ON/STANDBY
STANDBY
DSP
INPUT SELECTOR
VOLUME CONTROL
AUTO
DIRECT
MEMORY
DOLBY PRO LOGIC
DOLBY 3 STEREO
DSP LOGIC
DSP
BYPASS
LINE STRAIGHT
BAND
TUNING
TAPE 2/MONITOR
PHONES
A SPEAKERS B
N.B CIRCUIT
CENTER MODE
L BALANCE R
LEVEL MODE
MULTI LEVEL CONTROL
BASS
TREBLE
①
②
③
④
⑤
⑥
⑦
⑧
⑨
⑩
⑪
⑫
⑬
⑭
⑮
⑯
⑰
⑱
⑲
⑳
㉑
㉒
㉓
㉔
㉕

① POWER key

② STANDBY indicator

③ Numeric keys

④ AUTO key

⑤ DIRECT key

Press for direct station tuning based on numerical input.

⑥ MEMORY key

Press to preset a station in the memory.

⑦ INPUT SELECTOR knob

Turn to select the input sources.

⑧ TAPE 2(MONITOR) key

⑨ VOLUME CONTROL knob

⑩ DOLBY PRO LOGIC key

⑪ PHONES jack

Used for headphone listening.

⑫ DOLBY 3 STEREO key

⑬ SPEAKERS A/B keys

Press to select the A and/or B speaker systems.

⑭ N. B. CIRCUIT key

Use for correct reproduction of natural bass sound.

⑮ DSP LOGIC key

⑯ CENTER MODE key

Press to select the center mode of the DOLBY PRO LOGIC surround play.

⑰ DSP key

⑱ BYPASS key

Press to cancel the surround modes.

⑲ LINE STRAIGHT key

Press to reproduce the source with a higher sound quality.

⑳ BAND key

Press to switch the broadcast band.

㉑ BALANCE keys

Turn to adjust the volume balance between left and right.

㉒ LEVEL MODE key

Selects the item whose presets are to be changed (in SURROUND MODE).

㉓ TUNING keys

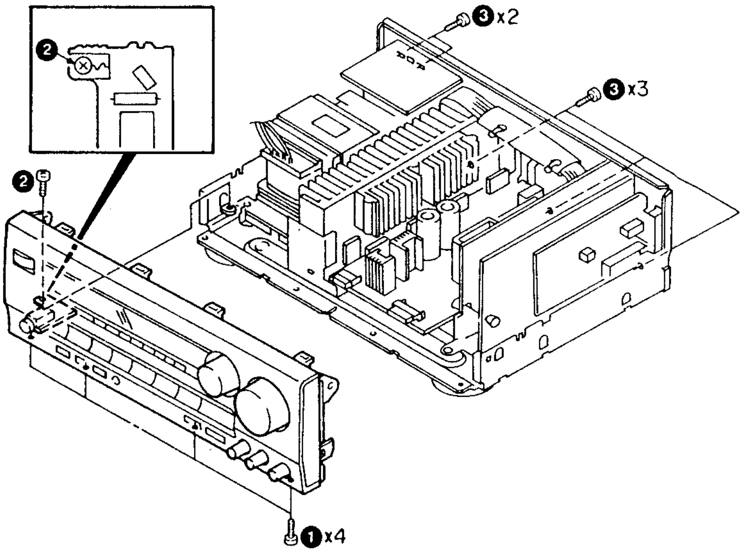
㉔ MULTI LEVEL CONTROL knob

Adjusts up or down the presets of the item selected with the LEVEL MODE key (in SURROUND MODE).

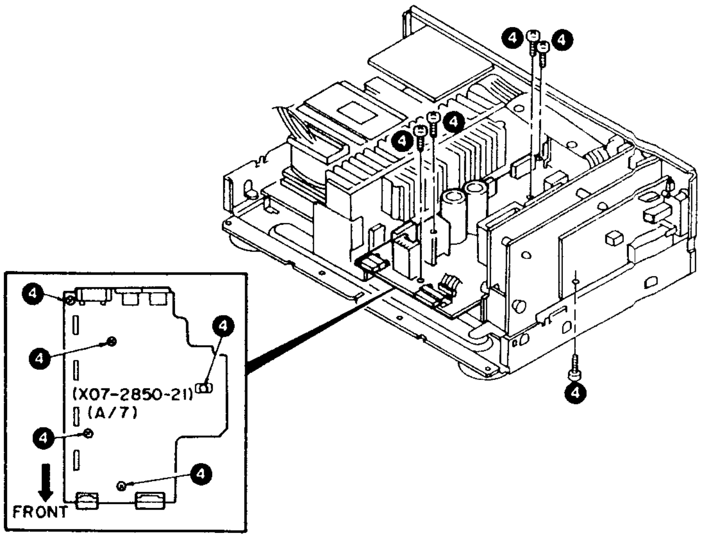
㉕ Tone control knobs

DISASSEMBLY FOR REPAIR

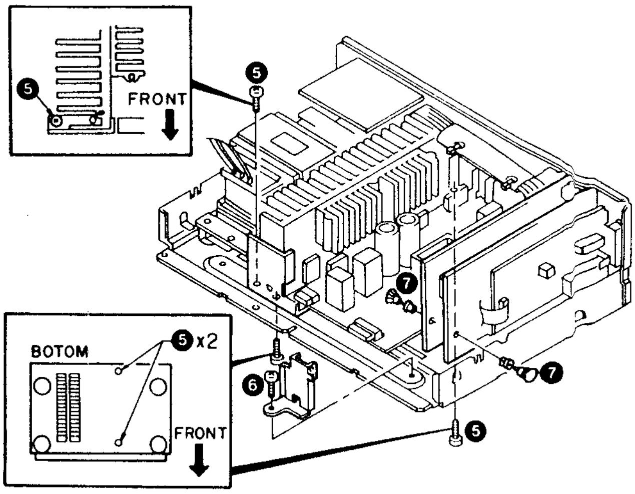
1. Remove the four front panel screws (❶).
2. Remove the one phone jack PCB screw (❷).
3. Remove the five rear panel screws (❸).


❷
❸x2
❸x3
❷
❶x4

4. Remove the five main PCB screws (❹).


❹
❹
❹
❹
❹
❹
❹
(X07-2850-21)
(A/7)
❹
❹
FRONT
❹

5. Remove the three heat sink mounting hardware screws(❺).
6. Remove the one X09 BCB mounting hardware screw (❻).
7. Remove the two push rivets (❼).


❺
FRONT
❺
❼
BOTOM
❺x2
❻
FRONT
❼
❺

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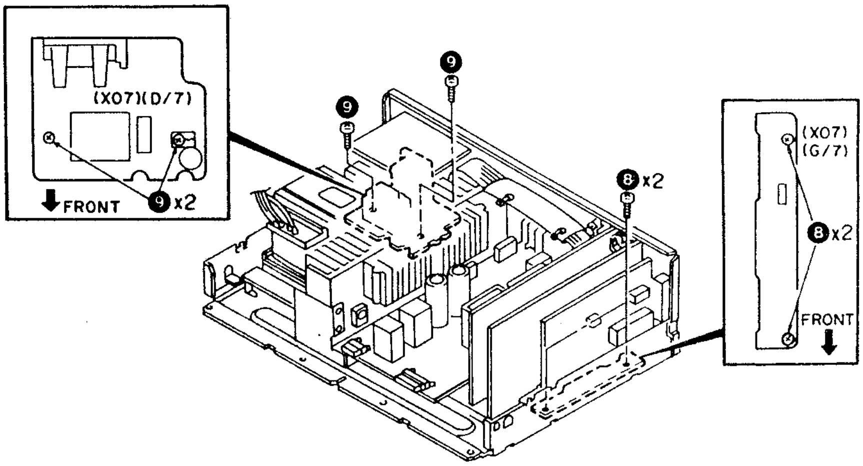
DISASSEMBLY FOR REPAIR

8. Remove the two (X07) (G/7) PCB screws (⑧).

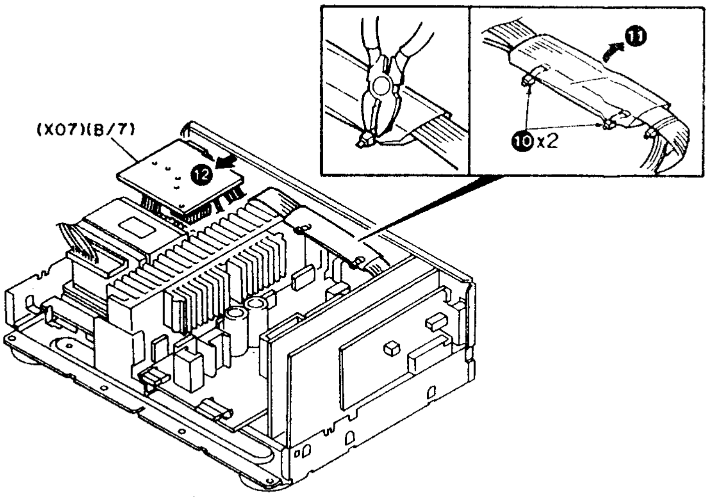
9. Remove the two (X07) (D/7) PCB screws (⑨).


(X07)(D/7)
FRONT
⑨x2
⑨
⑨
⑧x2
(X07)
(G/7)
⑧x2
FRONT

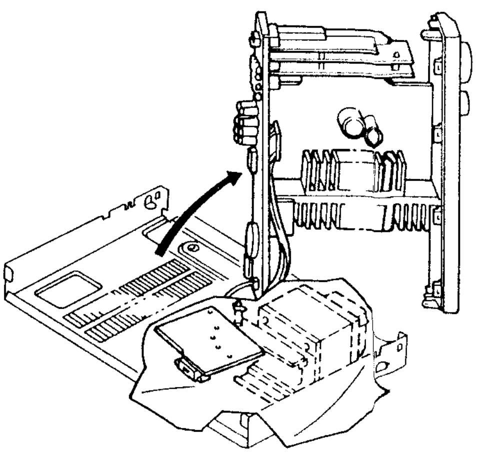
10. Cut the two wire bands (⑩).

11. Remove the insulating sheet (⑪). [Y.M type]

12. Remove the (X07) (B/7) PCB (⑫).


(X07)(B/7)
⑫
⑪
⑩x2

13. Stand the set with left side down ward.
(Lay a cloth on top of the transformer.)



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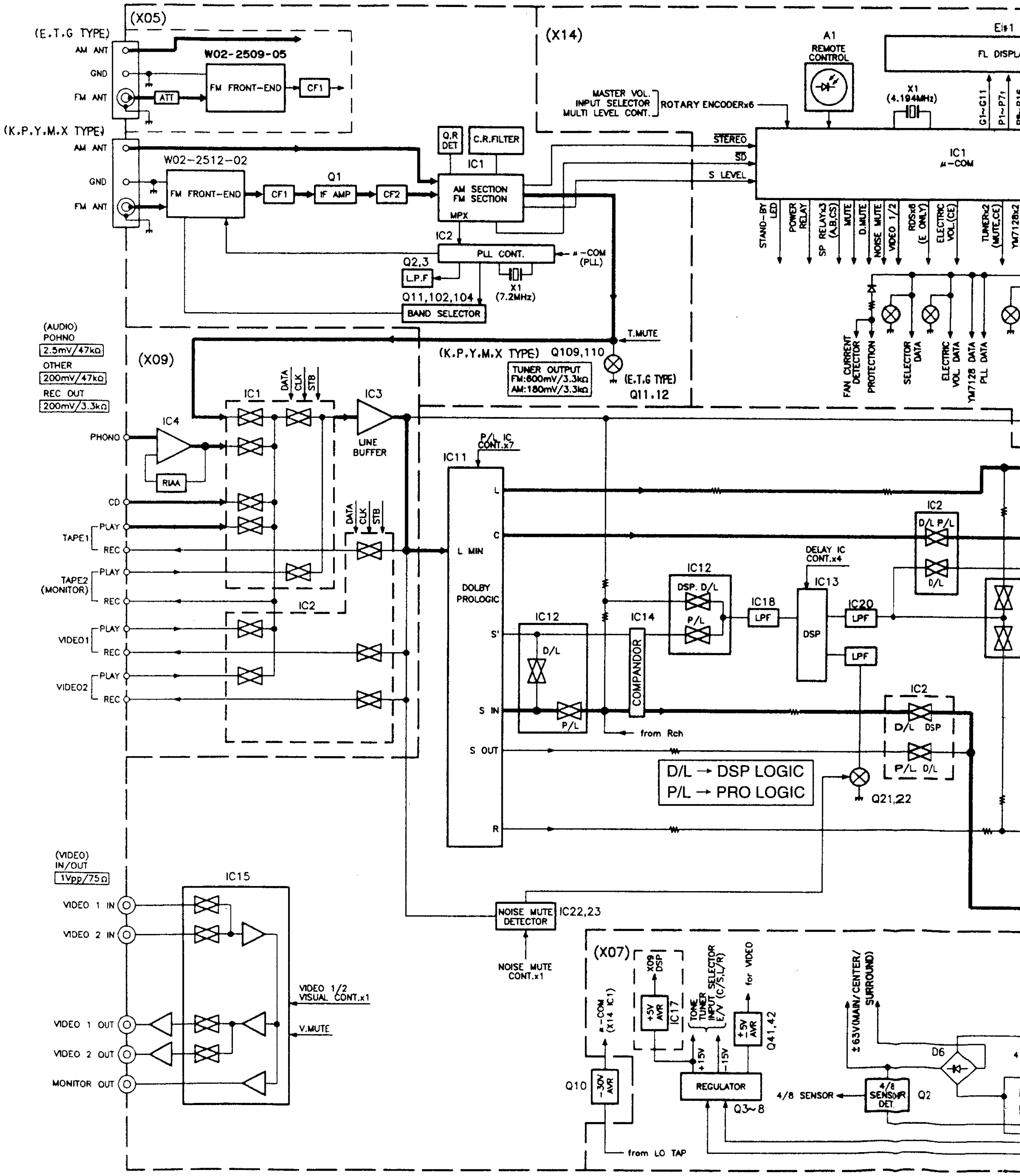
BLOCK DIAGRAM


(X05)
(E.T.G TYPE)
AM ANT
GND
FM ANT
ATT
W02-2509-05
FM FRONT-END
CF1
(K.P.Y.M.X TYPE)
AM ANT
GND
FM ANT
W02-2512-02
FM FRONT-END
CF1
Q1
IF AMP
CF2
Q,R DET
C.R.FILTER
IC1
AM SECTION
FM SECTION
MPX
IC2
PLL CONT.
μ-COM (PLL)
Q2,3
L.P.F
X1 (7.2MHz)
Q11,102,104
BAND SELECTOR
T.MUTE
(K.P.Y.M.X TYPE) Q109,110
TUNER OUTPUT FM:600mV/3.3kΩ AM:180mV/3.3kΩ
(E.T.G TYPE) Q11,12
(X14)
MASTER VOL. INPUT SELECTOR MULTI LEVEL CONT.
ROTARY ENCODERx6
A1 REMOTE CONTROL
X1 (4.194MHz)
FL DISPL
STEREO
SD
S LEVEL
IC1 μ-COM
G1~G11
P1~P71
STAND-BY LED
POWER RELAY
SP RELAYx3 (A,B,CS)
MUTE
D.MUTE
NOISE MUTE
VIDEO 1/2
RDSx6 (E ONLY)
ELECTRIC VOL.(CE)
TUNERx2 (MUTE,CE)
YM7128x2
FAN CURRENT DETECTOR
PROTECTION
SELECTOR DATA
ELECTRIC VOL DATA
YM7128 DATA
PLL DATA
(AUDIO)
POHNO 2.5mV/47kΩ
OTHER 200mV/47kΩ
REC OUT 200mV/3.3kΩ
(X09)
PHONO
IC4
RIAA
IC1
DATA CLK STB
IC3
LINE BUFFER
CD
TAPE1 PLAY REC
TAPE2 (MONITOR) PLAY REC
VIDEO1 PLAY REC
VIDEO2 PLAY REC
IC2
DATA CLK STB
P/L IC CONT.x7
IC11
L
C
L MIN
DOLBY PROLOGIC
S'
S IN
S OUT
R
IC12
D/L
P/L
IC14
COMPANDOR
from Rch
IC12
DSP. D/L
P/L
IC18
LPF
DELAY IC CONT.x4
IC13
DSP
IC20
LPF
LPF
IC2
D/L P/L
D/L
IC2
D/L DSP
P/L D/L
D/L → DSP LOGIC
P/L → PRO LOGIC
Q21,22
(VIDEO) IN/OUT 1Vpp/75Ω
IC15
VIDEO 1 IN
VIDEO 2 IN
VIDEO 1 OUT
VIDEO 2 OUT
MONITOR OUT
VIDEO 1/2 VISUAL CONT.x1
V.MUTE
NOISE MUTE DETECTOR
IC22,23
NOISE MUTE CONT.x1
(X07)
μ-COM (X14 IC1)
X09 DSP
+5V AVR
IC17
TONE TUNER INPUT SELECTOR E/V (C/S,L/R)
for VIDEO
+5V AVR
Q41,42
±63V(MAIN/CENTER/SURROUND)
D6
Q10
-30V AVR
+15V
-15V
REGULATOR
Q3~8
4/8 SENSOR
4/8 SENSOR DET.
Q2
from LO TAP

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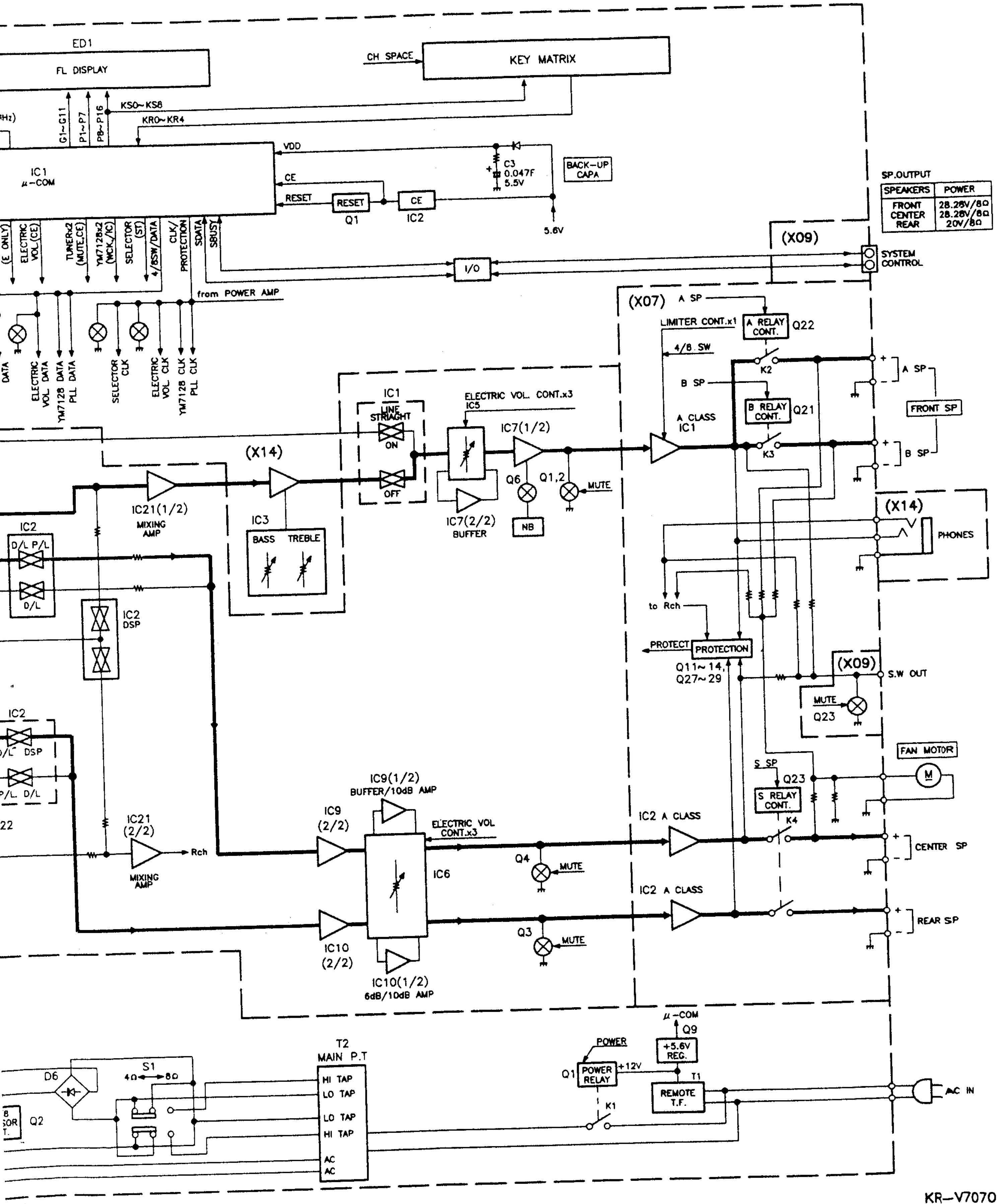
ED1
FL DISPLAY
KEY MATRIX
CH SPACE
KS0~KS8
KR0~KR4
G1~G11
P1~P7
P8~P16
IC1
μ-COM
VDD
CE
RESET
RESET
Q1
CE
IC2
C3
0.047F
5.5V
BACK-UP CAPA
5.6V
(E ONLY)
ELECTRIC VOL.(CE)
TUNER×2 (MUTE,CE)
YM7128×2 (WCK,/IC)
SELECTOR (ST)
4/8SW/DATA
CLK/ PROTECTION
SDATA
SBUSY
I/O
(X09)
SYSTEM CONTROL
SP.OUTPUT
SPEAKERS | POWER
FRONT | 28.28V/8Ω
CENTER | 28.28V/8Ω
REAR | 20V/8Ω
from POWER AMP
DATA
ELECTRIC VOL DATA
YM7128 DATA
PLL DATA
SELECTOR CLK
ELECTRIC VOL CLK
YM7128 CLK
PLL CLK
(X07)
A SP
LIMITER CONT.x1
A RELAY CONT.
Q22
4/8 SW
K2
B SP
B RELAY CONT.
Q21
K3
A CLASS
IC1
A SP
FRONT SP
B SP
IC1
LINE STRAIGHT
ON
OFF
ELECTRIC VOL. CONT.x3
IC5
IC7(1/2)
Q6
Q1,2
MUTE
NB
IC7(2/2)
BUFFER
(X14)
IC3
BASS
TREBLE
IC21(1/2)
MIXING AMP
IC2
D/L P/L
D/L
IC2
DSP
IC2
D/L DSP
P/L D/L
22
IC21 (2/2)
MIXING AMP
Rch
(X14)
PHONES
to Rch
PROTECT
PROTECTION
Q11~14, Q27~29
(X09)
S.W OUT
MUTE
Q23
FAN MOTOR
M
S SP
Q23
S RELAY CONT.
K4
IC2 A CLASS
CENTER SP
IC2 A CLASS
REAR SP
IC9(1/2)
BUFFER/10dB AMP
IC9 (2/2)
ELECTRIC VOL CONT.x3
IC6
Q4
MUTE
Q3
MUTE
IC10 (2/2)
IC10(1/2)
6dB/10dB AMP
T2
MAIN P.T
HI TAP
LO TAP
LO TAP
HI TAP
AC
AC
D6
S1
4Ω←→8Ω
Q2
8
SOR
T.
POWER
Q1
POWER RELAY
+12V
K1
μ-COM
Q9
+5.6V REG.
T1
REMOTE T.F.
AC IN

CIRCUIT DESCRIPTION

1. INITIAL STATE

(1) POWER OFF

(2) AMP-related block

• AUDIO SELECTOR	TUNER
• VIDEO SELECTOR	VIDEO 1
• SPEAKER A	ON
• SPEAKER B	OFF
• TAPE 2 MONITOR	OFF
• LINE STRAIGHT	OFF
• VISUAL FIX	OFF
• N.B. CIRCUIT	OFF
• BALANCE	CENTER
• VOLUME	–65 dB

(3) SURROUND-related block

• MODE	BYPASS (OFF)
• CENTER LEVEL	0 dB
• REAR LEVEL	0 dB
• CENTER MODE	NORMAL
• DSP MODE	ARENA
• DSP LOGIC MODE	LARGE

- EFFECT LEVEL:

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DSP	ARENA	–2 dB
	JAZZ CLUB	–2 dB
	STADIUM	+2 dB
DSP LOGIC		0 dB

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DSP	0 dB
DSP LOGIC	0 dB

- DELAY TIME

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DSP	ARENA	10 msec
	JAZZ CLUB	20 msec
	STADIUM	30 msec
DSP LOGIC		
	LARGE	20 msec
	SMALL	30 msec
PRO LOGIC		20 msec

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DSP	40 msec
DSP LOGIC	40 msec
PRO LOGIC	20 msec

(4) Tune-related block

• BAND	FM
• FREQUENCY	Lower-limit value of FM (87.50 MHz)
• Tuning MODE	AUTO TUNING (AUTO STEREO)
• P. CH DISPLAY	- - CH
• Preset memory	

Table 1-1 Initial Data List of Tuner

Channel	BAND	K1 TYPE	BAND	K2 TYPE	BAND	E TYPE
01ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
02ch	FM	98.00MHz	FM	98.00MHz	FM	98.00MHz
03ch	FM	108.00MHz	FM	108.00MHz	FM	108.00MHz
04ch	AM	630kHz	AM	630kHz	AM	630kHz
05ch	AM	990kHz	AM	990kHz	AM	990kHz
06ch	AM	1440kHz	AM	1440kHz	AM	1440kHz
07ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
08ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
09ch	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
10ch	FM	89.10MHz	FM	89.10MHz	FM	89.10MHz
11ch	FM	88.00MHz	FM	88.00MHz	FM	88.00MHz
12ch	FM	90.00MHz	FM	90.00MHz	FM	90.00MHz
13ch	FM	97.50MHz	FM	97.50MHz	FM	97.50MHz
14ch	FM	98.50MHz	FM	98.50MHz	FM	98.50MHz
15ch	FM	106.00MHz	FM	106.00MHz	FM	106.00MHz
16ch	AM	530kHz	AM	530kHz	AM	531kHz
17ch	AM	1000kHz	AM	1000kHz	AM	999kHz
18ch	AM	1700kHz	AM	1610kHz	AM	1602kHz
19ch	FM	96.30MHz	FM	96.30MHz	FM	96.30MHz
20ch	FM	107.00MHz	FM	107.00MHz	FM	107.00MHz
21CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
22CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
23CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
24CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
25CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
26CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
27CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
28CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
29CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
30CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
31CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
32CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
33CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
34CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
35CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
36CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
37CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
38CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
39CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz
40CH	FM	87.50MHz	FM	87.50MHz	FM	87.50MHz

CIRCUIT DESCRIPTION

2. BACKUP

This function holds the current state of the unit even if the AC power of the AV receiver is turned OFF.

(1) Operation outline

The backup state set command signal (CE) of a microcomputer is set low when the AC power is turned OFF. The microcomputer detects the signal and enters the stop state.
The microcomputer is reset when the AC power is turned ON. The data for backup state confirmation is checked by reset processing.
The microcomputer is initialized when the data was destroyed. If it is not destroyed, the microcomputer is started in the backup state.

- The data (16-bit) for backup state confirmation is written in a RAM area.
- The microcomputer is set to the STOP mode so as to save the power consumption.
- A backup state set command signal is detected by a timer interrupt of 1 msec.
- The backup guarantee period is set in a circuit.

(2) Backup state setting

- The data (16-bit)(01011010 01101001b = 5A69h) for backup state confirmation is written in a RAM area.
- Setting the special function port
  Set the input/output port of a serial interface to the serial interface operation stop mode. Set the FIP controller to the display OFF mode.
- Setting the microcomputer's internal special function
  Set all the interrupt enable flags to the disable state, respectively. Set the microcomputer to the STOP mode and stop the system clock oscillation of the microcomputer.

(3) Contents of backup data to be held

- POWER ON/OFF state
- VOLUME LEVEL data
- BALANCE LEVEL data
- N.B. ON/OFF
- SELECTOR MODE data
- SURROUND MODE data
- DELAY TIME data (PRO LOGIC, DSP, and DSP LOGIC)
- EFFECT LEVEL data (DSP and DSP LOGIC)
- CENTER LEVEL data (DSP LOGIC, PRO LOGIC, and 3 STEREO)
- REAR LEVEL data (DSP, DSP LOGIC, and PRO LOGIC)
- TUNER RECEIVING STATION FREQUENCY data
- TUNER PRESET MEMORY data
- TUNER AUTO/MANUAL mode

3. PROTECTION

The protection state is entered when abnormality is detected during the POWER-ON sequence.

- The power and speaker are turned OFF when the abnormal state is detected during the POWER-ON sequence.
- The STANDBY LED blinks every 500 msec.
- The fluorescent display indicator goes OFF.

CIRCUIT DESCRIPTION

4. DESTINATION AND MODEL LIST

Table 4-1 Destination and Model List

MODEL		KR-V8070	KR-V7070
FUNCTION	DESTINATION	KPMXY	KPMXYET
AMP	DSP	○○○○○	○○○○○○○
	VISUAL FIX	○○○○○	×××××××
TUNER	K1	×○×××	×○×××××
	K2	○○○×○	○○○×○××
	E1	××○○○	××○○○○○
	E3 (RDS)	×××××	×××××○○

○ :YES
× :NO

5. DESTINATION LIST OF TUNER

Table 5-1 Destination List of Tuner

Destination	BAND	Receive frequency range	channel space	1F	PLL reference frequency	Destination DSW(X14-)		
						DSW2	DSW1	DSW0
						P25	P24,28	P23
K1	FM	87.5MHz~108.0MHz	100kHz	10.7MHz	50kHz	0	0	0
	AM	530kHz~1700kHz	10kHz	450kHz	10kHz			
K2	FM	87.5MHz~108.0MHz	100kHz	10.7MHz	50kHz	*1		
	AM	530kHz~1610kHz	10kHz	450kHz	10kHz			
E1	FM	87.5MHz~108.0MHz	50kHz	10.7MHz	50kHz	0	1	1
	AM	531kHz~1602kHz	9kHz	450kHz	10kHz			
E3	FM	87.5MHz~108.0MHz	50kHz	10.7MHz	50kHz	1	0	1
	AM	531kHz~1602kHz	9kHz	450kHz	9kHz			

*1 Set as K2 for except when the data for destination description is K1, E1, and E3.

※ ATTENTION

A SUB WOOFER output signal is output irrespective of SP selector switch (ASP and BSP) ON/OFF setting

The RDS PTY AF search always corresponds to a span search of 100kHz. Therefore, a span search of 50 kHz cannot be performed.

6. TEST MODE

6-1. TEST MODE OF MAIN UNIT

(1) Setting the test mode
The main unit is put into the test mode when the AC power is turned ON while pressing the "TUNING DOWN" key. The following state is obtained when the test mode of the main unit is set.

- The power is turned ON automatically.
- All the fluorescent display indicators and LEDs light. (The all-illuminated state is cleared by pressing any main unit key.)
- The backup state except when the power is turned ON and OFF is initialized.

(2) Canceling the test mode
Turn OFF the AC power.

(3) Tuner functions

- Preset channel call function

1)Calls channels 1 to 9 (keys 1 to 9) and channel 10 (key 0) when the 10 key is not operated.
2)Calls channels 11 to 19 (keys 1 to 9) and channel 20 (key 0) when the +10 key is operated once.
3)Calls channels 21 to 29 (keys 1 to 9) and channel 30 (key 0) when the +10 key is operated two times and calls channels 31 to 39 (keys 1 to 9) and channel 40 (key 0) when the +10 key is operated three times.
4)Shifts to the operation obtained when the +10 key is not operated if it is operated four times.

- All turn-off function

Turns OFF and ON all the LEDs cyclically using the "MULTI MODE" key. This function is executed only when the SELECTOR mode is set to TUNER. In states other than TUNER, the original function of this key is executed.

- Mute signal output

No Selector MUTE (MUTE 1) control regulation is done whatever.

(4) AMP function
The original function of each key is executed when the SELECTOR mode is set to TUNER. The test mode operation is not performed in this case.

- FRONT VOLUME setting

Sets the maximum value (0 dB) of the front volume using the "AUTO" key.
Sets the minimum value ($-\infty$ dB) of the front volume using the "TAPE2" key.

- BALANCE L/R setting

Sets the most left edge of the balance using the "BALANCE L" key.
Sets the center of the balance using the "MEMORY" key.
Sets the most right edge of the balance using the "BALANCE R" key.

- TEST TONE operation

Uses the "DIRECT" key instead of the "TEST TONE" key.

- MUTE signal output

Sets the analog muting to OFF at all times. No control is performed in this case. Sets the analog muting to ON in the same way as during normal operation when the front volume is set to the minimum value ($-\infty$ dB).

- Impedance 4/8 selection

No impedance 4/8 display appears in the normal state. Therefore, the SPEAKERS lamp of the fluorescent display indicator is turned ON and OFF in the test mode.

The SPEAKERS lamp is turned on when the impedance is 4.
The SPEAKERS lamp is turned off when the impedance is 8.

6-2. SERIAL TEST MODE

(1) Setting the serial test mode
The unit is put into the serial test mode when a serial code "TEST ON" is input during the power-on sequence.

In the 8-bit serial test mode, serial code 71H is input.

In the 16-bit serial test mode, serial code C27FH is input.

- In the serial test mode, all remote control keys and ordinary serial codes are disabled. Only the panel keys perform the same operation as usually.

(2) Canceling the serial test mode

- The serial test mode is canceled to return to the ordinary mode by inputting a "TEST OFF" code. After the ordinary mode was returned, the serial mode is returned to the state before the test mode is entered. The backup operation is not initialized.
- The serial test mode is also canceled when the AC power is turned OFF.

(3) Cautions

- The serial test code is prescribed as a 16-bit code only.
- The operations below are inhibited in the serial test mode.

Manual tuning up/down operation
Up/down selection in PTY selection mode
AF search in ATT ON state
The operations mentioned above cannot be guaranteed when they are performed in the serial test mode.

- An identical code is output when the serial test mode code is input.
- A TUNED ON/TUNED OFF code is only output.

CIRCUIT DESCRIPTION

(4) SERIAL TEST CODE LIST

Table 6-1 Serial Test Code List

Serial test code	Description	Serial test code	Description
C200H	Turn OFF the power.	C298H	Perform the 8 key operation.
C201H	Turn ON the power.	C299H	Perform the 9 key operation.
C202H	Set the selector to PHONO.	C29AH	Perform the +10 key operation.
C203H	Set the selector to CD.	C29BH	Set the band FM.
C204H	Set the selector to TUNER.	C29CH	Set the band AM.
C205H	Set the selector to TAPE1.	C29EH	Perform the tuning DOWN operation.
C209H	Set the selector to VIDEO1.	C29FH	Perform the tuning UP operation.
C20AH	Set the selector to VIDEO2.	C2A0H	Set the TUNER MEMORY mode.
C20BH	Set the selector to VIDEO3.	C302H	Set the surround level to BYPASS.
C20CH	Set the selector to VIDEO4.	C303H	Set the surround level to PRO LOGIC.
C20DH	Turn ON the analog muting.	C304H	Set the surround level to 3 STEREO.
C20FH	Turn OFF the analog muting.	C309H	Set the CENTER mode to NORMAL.
C216H	Set the line straight to OFF.	C30AH	Set the CENTER mode to WIDE BAND.
C217H	Set the line straight to ON.	C30BH	Set the CENTER mode to PHANTOM.
C21EH	Set speaker A to OFF.	C30CH	Set the TEST TONE mode to OFF.
C21FH	Set speaker A to ON.	C30DH	Set the TEST TONE mode to ON.
C220H	Set speaker B to OFF.	C312H	Set the center level to the minimum value.
C221H	Set speaker B to ON.	C313H	Set the center level to the middle value.
C228H	Set the TAPE2 monitor to OFF.	C314H	Set the center level to the maximum value.
C229H	Set the TAPE2 monitor to ON.	C315H	Set the rear level to the minimum value.
C23FH	Set the NB circuit to ON.	C316H	Set the rear level to the middle value.
C240H	Set the NB circuit to OFF.	C317H	Set the rear level to the maximum value.
C247H	Set the balance channel L to the maximum value.	C318H	Set the delay time to the minimum value.
C248H	Set the balance channels L and R to the center value.	C319H	Set the delay time to the middle value.
C249H	Set the balance channel R to the maximum value.	C31AH	Set the delay time to the maximum value.
C279H	Set all turn-off mode of FLs and LEDs to OFF.	C31BH	Set the effect level to the minimum value.
C27AH	Set all turn-off mode of FLs and LEDs to ON.	C31CH	Set the effect level to the middle value.
C27BH	Set all turn-on mode of FLs and LEDs to OFF.	C31DH	Set the effect level to the maximum value.
C27CH	Set all turn-on mode of FLs and LEDs to ON.	C33AH	Set the DSP mode to ARENA.
C27DH	Initializes the system	C33BH	Set the DSP mode to JAZZ CLUB.
C27EH	Set the serial test mode to OFF.	C33CH	Set the DSP mode to STADIUM.
C27FH	Set the serial test mode to ON (71H in 8-bit mode)	C34CH	Set the DSP LOGIC mode to LARGE.
C282H	Set the tuner muting to OFF.	C34DH	Set the DSP LOGIC mode to SMALL.
C283H	Set the tuner muting to ON.	C400H	Set the volume value to 0 dB.
C284H	Set the TUNER AUTO STEREO mode.	C401H	Set the volume value to -1 dB.
C285H	Set TUNER MONAURAL mode.	C402H	Set the volume value to -2 dB.
C286H	TUNED OFF code	C403H	Set the volume value to -3 dB.
C287H	TUNED ON code	C404H	Set the volume value to -4 dB.
C28FH	Set the TUNER DIRECT mode.	C405H	Set the volume value to -5 dB.
C290H	Perform the 0 key operation.	C406H	Set the volume value to -6 dB.
C291H	Perform the 1 key operation.	C407H	Set the volume value to -7 dB.
C292H	Perform the 2 key operation.	C408H	Set the volume value to -8 dB.
C293H	Perform the 3 key operation.	C409H	Set the volume value to -9 dB.
C294H	Perform the 4 key operation.	C40AH	Set the volume value to -10 dB.

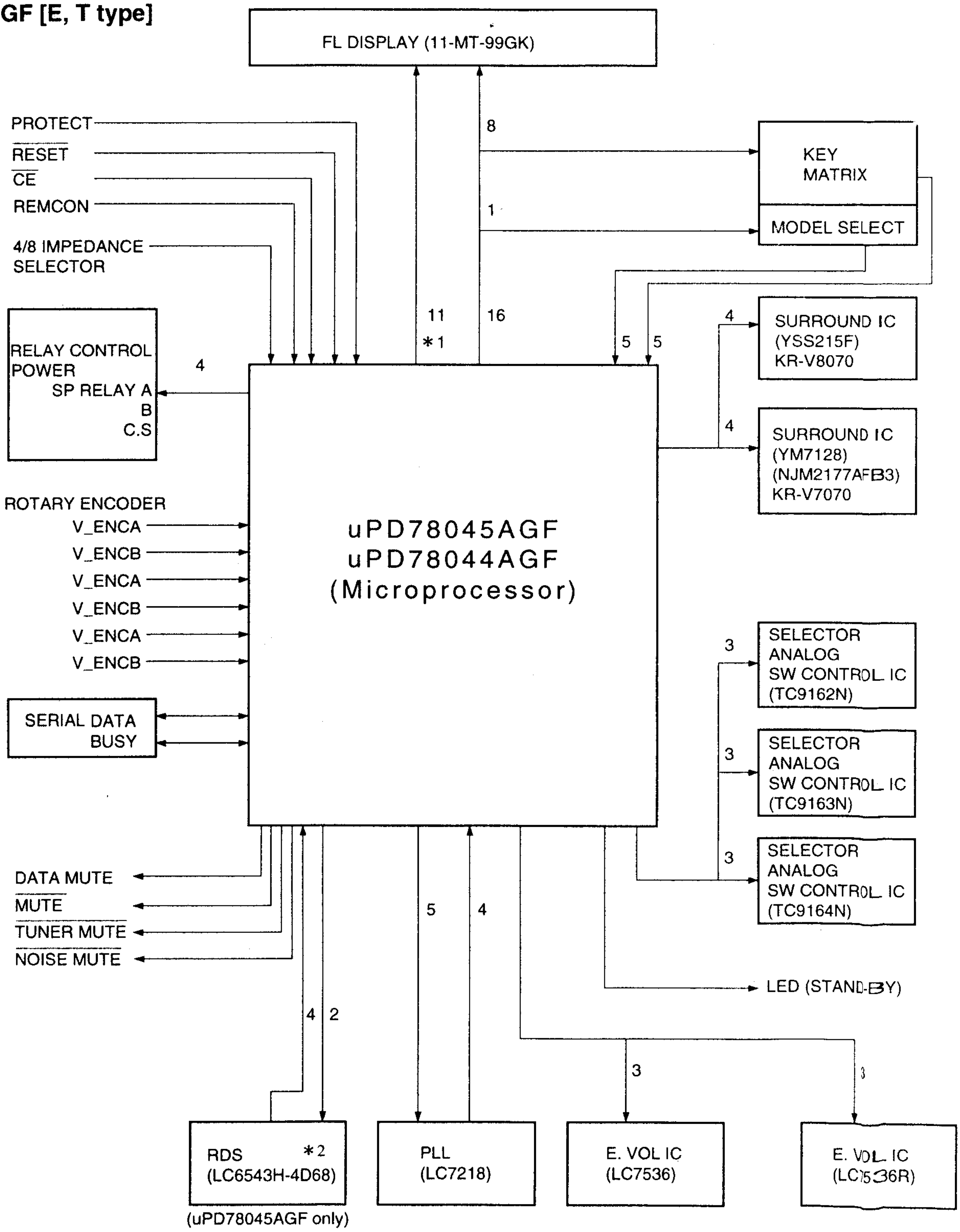
CIRCUIT DESCRIPTION

Serial test code	Description	Serial test code	Description
C295H	Perform the 5 key operation.	C40BH	Set the volume value to -11 dB.
C296H	Perform the 6 key operation.	C40CH	Set the volume value to -12 dB.
C297H	Perform the 7 key operation.	C40DH	Set the volume value to -13 dB.
C40EH	Set the volume value to -14 dB.	C42BH	Set the volume value to -43 dB.
C40FH	Set the volume value to -15 dB.	C42CH	Set the volume value to -44 dB.
C410H	Set the volume value to -16 dB.	C42DH	Set the volume value to -45 dB.
C411H	Set the volume value to -17 dB.	C42EH	Set the volume value to -46 dB.
C412H	Set the volume value to -18 dB.	C42FH	Set the volume value to -47 dB.
C413H	Set the volume value to -19 dB.	C430H	Set the volume value to -48 dB.
C414H	Set the volume value to -20 dB.	C431H	Set the volume value to -49 dB.
C415H	Set the volume value to -21 dB.	C432H	Set the volume value to -50 dB.
C416H	Set the volume value to -22 dB.	C433H	Set the volume value to -51 dB.
C417H	Set the volume value to -23 dB.	C434H	Set the volume value to -52 dB.
C418H	Set the volume value to -24 dB.	C435H	Set the volume value to -53 dB.
C419H	Set the volume value to -25 dB.	C436H	Set the volume value to -54 dB.
C41AH	Set the volume value to -26 dB.	C437H	Set the volume value to -55 dB.
C41BH	Set the volume value to -27 dB.	C438H	Set the volume value to -56 dB.
C41CH	Set the volume value to -28 dB.	C439H	Set the volume value to -57 dB.
C41DH	Set the volume value to -29 dB.	C43AH	Set the volume value to -58 dB.
C41EH	Set the volume value to -30 dB.	C43BH	Set the volume value to -59 dB.
C41FH	Set the volume value to -31 dB.	C43CH	Set the volume value to -60 dB.
C420H	Set the volume value to -32 dB.	C43DH	Set the volume value to -61 dB.
C421H	Set the volume value to -33 dB.	C43EH	Set the volume value to -62 dB.
C422H	Set the volume value to -34 dB.	C43FH	Set the volume value to -63 dB.
C423H	Set the volume value to -35 dB.	C440H	Set the volume value to -64 dB.
C424H	Set the volume value to -36 dB.	C441H	Set the volume value to -65 dB.
C425H	Set the volume value to -37 dB.	C442H	Set the volume value to -66 dB.
C426H	Set the volume value to -38 dB.	C443H	Set the volume value to -67 dB.
C427H	Set the volume value to -39 dB.	C444H	Set the volume value to -68 dB.
C428H	Set the volume value to -40 dB.	C445H	Set the volume value to -69 dB.
C429H	Set the volume value to -41 dB.	C446H	Set the volume value to -∞ dB.
C42AH	Set the volume value to -42 dB.		

CIRCUIT DESCRIPTION

7.Micro processer:μ PD 78044AGF (X14:IC1)
μ PD 78045AGF

Block diagram
μ PD 78044AGF [K, P, M, X, Y type]
μ PD 78045AGF [E, T type]

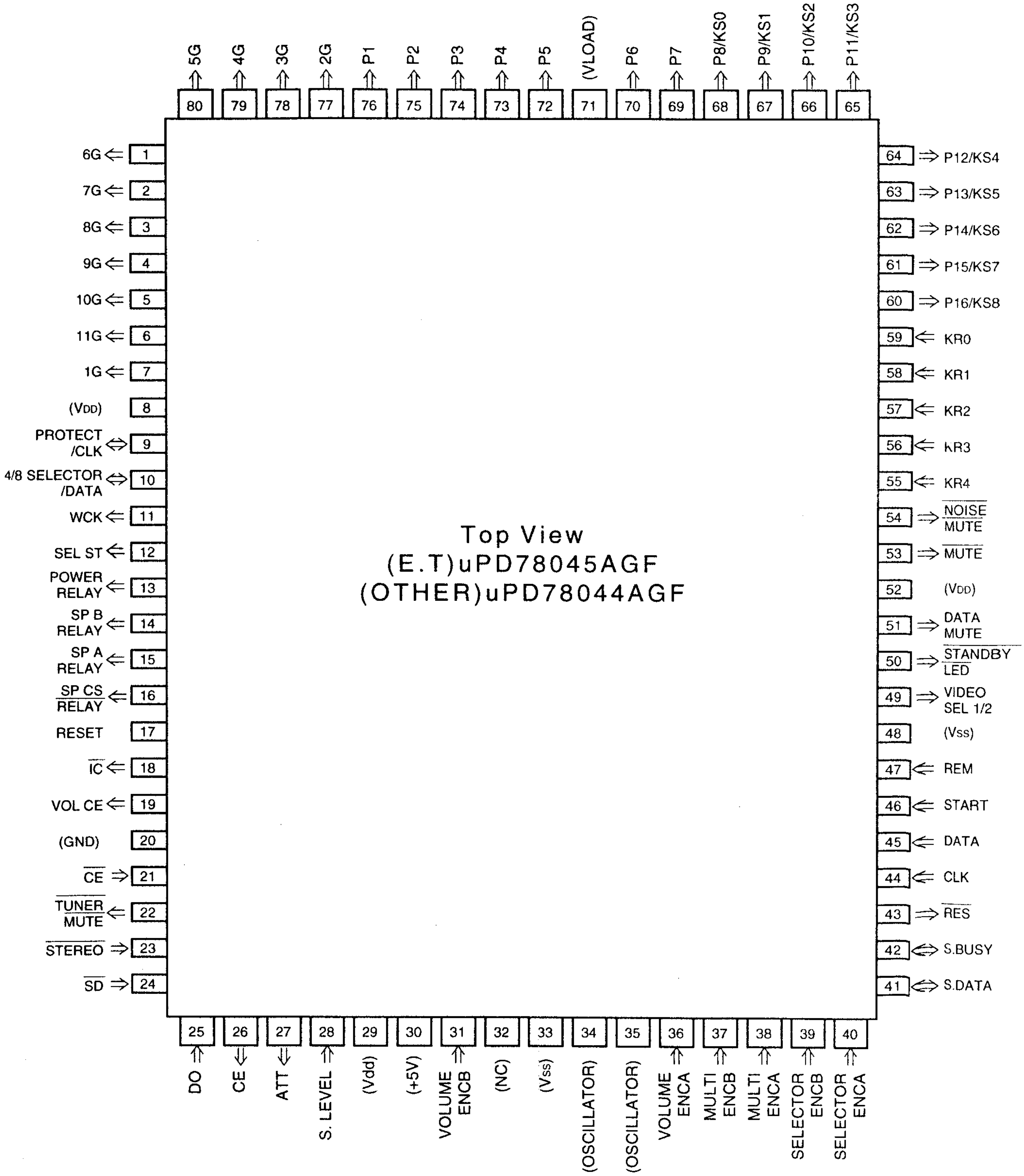

FL DISPLAY (11-MT-99GK)
PROTECT
RESET
CE
REMCON
4/8 IMPEDANCE SELECTOR
8
1
KEY MATRIX
MODEL SELECT
11
*1
16
5
5
4
SURROUND IC (YSS215F) KR-V8070
4
SURROUND IC (YM7128) (NJM2177AFB3) KR-V7070
RELAY CONTROL
POWER
SP RELAY A
B
C.S
4
ROTARY ENCODER
V_ENCA
V_ENCB
V_ENCA
V_ENCB
V_ENCA
V_ENCB
uPD78045AGF
uPD78044AGF
(Microprocessor)
SERIAL DATA
BUSY
3
SELECTOR ANALOG SW CONTROL IC (TC9162N)
3
SELECTOR ANALOG SW CONTROL IC (TC9163N)
3
SELECTOR ANALOG SW CONTROL IC (TC9164N)
DATA MUTE
MUTE
TUNER MUTE
NOISE MUTE
5
4
LED (STAND-BY)
4
2
3
3
RDS *2 (LC6543H-4D68)
(uPD78045AGF only)
PLL (LC7218)
E. VOL IC (LC7536)
E. VOL IC (LC7536R)

*1 GRID to FL

*2 E3 Type (RDS feature installed) used RDS cync microprocessor (LC6543H-4D68).

CIRCUIT DESCRIPTION

Port layout


Top View
(E.T)uPD78045AGF
(OTHER)uPD78044AGF
80 5G
79 4G
78 3G
77 2G
76 P1
75 P2
74 P3
73 P4
72 P5
71 (VLOAD)
70 P6
69 P7
68 P8/KS0
67 P9/KS1
66 P10/KS2
65 P11/KS3
1 6G
2 7G
3 8G
4 9G
5 10G
6 11G
7 1G
8 (VDD)
9 PROTECT /CLK
10 4/8 SELECTOR /DATA
11 WCK
12 SEL ST
13 POWER RELAY
14 SP B RELAY
15 SP A RELAY
16 SP CS RELAY
17 RESET
18 IC
19 VOL CE
20 (GND)
21 CE
22 TUNER MUTE
23 STEREO
24 SD
64 P12/KS4
63 P13/KS5
62 P14/KS6
61 P15/KS7
60 P16/KS8
59 KR0
58 KR1
57 KR2
56 KR3
55 KR4
54 NOISE MUTE
53 MUTE
52 (VDD)
51 DATA MUTE
50 STANDBY LED
49 VIDEO SEL 1/2
48 (Vss)
47 REM
46 START
45 DATA
44 CLK
43 RES
42 S.BUSY
41 S.DATA
25 DO
26 CE
27 ATT
28 S. LEVEL
29 (Vdd)
30 (+5V)
31 VOLUME ENCB
32 (NC)
33 (Vss)
34 (OSCILLATOR)
35 (OSCILLATOR)
36 VOLUME ENCA
37 MULTI ENCB
38 MULTI ENCA
39 SELECTOR ENCB
40 SELECTOR ENCA

CIRCUIT DESCRIPTION

7.1 PIN FUNCTION

For pin numbers marked by an asterisk (*) the upper row is µPD78045AGF and the lower (□)row is µPD78044AGF.

Pin NO.	Pin name	Port I/O	Name	Description	Active
1	P94/FIP6	O	6G	FL grid 6	———
2	P93/FIP5	O	7G	FL grid 7	———
3	P92/FIP4	O	8G	FL grid 8	———
4	P91/FIP3	O	9G	FL grid 9	———
5	P90/FIP2	O	10G	FL grid 10	———
6	P81/FIP1	O	11G	FL grid 11	———
7	P80FIP0	O	1G	FL grid 1	———
8	Vcc	——	VDD	Micro processor power supply	———
9	P27/ SCK0	I/O	PROTECT/CLK	IN:Protection detection OUT:Control IC clock	L:ON
10	P26/S00/SB1	I/O	4/8 SELECT/DATA	IN:Speaker impedance selector OUT:Control IC data	H:8 L:4
11	P25/SI0/SB0	O	WCK	DSP IC address/data discrimination signal (YSS215/YM7218)	H:ADDRESS L:DATA
12	P24/BUSY	O	SEL ST.	Selector IC data definition signal	H:ADDRESS L:DATA
13	P23/STB	O	POWER RELAY	Power relay control	H:ON
14	P22/ SCK1	O	SP B RELAY	Speaker B relay control	H:ON
15	P21/S01	O	SP A RELAY	Speaker A relay control	H:ON
16	P20/SI1	O	SP CS RELAY	Surround speaker relay control	H:ON
17	RESET	I	RESET	Microprocesser reset	L:RESET ON
18	P74	O	IC	DSP IC reset control (YSS215/YM7218)	L:RESET ON
19	P73	O	VOL CE	Volume IC address/data CE	H:ADDRESS L:DATA
20	A Vss	——	GND	A/D power supply (GND)	———
21	P17/AN17	I	CE	Back up detection	L:BACK UP ON
22	P16/AN16	O	TUNER MUTE	Tuner mute control	L:MUTE ON
23	P15/AN15	I	STEREO	Stereo signal detection	L:STEREO ON
24	P14/AN14	I	SD	Synchronized signal detection	———
25	P13/AN13	I	DO	IF count data (PLL DO)	———
26	P12/AN12	O	CE (PLL)	PLL Chip enable control	H:OH
* 27	P11/AN11	O	ATT (RDS)	Attenuate control	H:ON
* 28	P10/AN10	I	S.LEVEL (RDS)	Signal level	H:ON
29	A Vcc	——	VDD	A/D power supply	———
30	A Vref	——	+5V	A/D reference voltage	———
31	P04/XT1	I	VOLUME ENCB	Volume encoder input B	L:ON
32	XT2	——	NC		———
33	Vss	——	Vss	Microprocesser power supply	———
34	X1	——	OSC	4.19MHz oscillator	———
35	X2	——	OSC	4.19MHz oscillator	———
36	P37	I	VOLUME ENCA	Volume encoder input A	L:ON
37	P36/BUZ	I	MULTI ENCB	Multi level encoder input B	L:ON
38	P35/PCL	I	MULTI ENCA	Multi level encoder input A	L:ON
39	P34/T12	I	SELECTOR ENCB	Selector encoder input B	L:ON
40	P33/T11	I	SELECTOR ENCA	Selector encoder input A	L:ON
41	P32/T02	I/O	S. DATA	8/16 bit system data	———
42	P31/T01	I/O	S. BUSY	8/16 bit system busy	H:BUSY L:READY
* 43	P30/T00	O	RES (RDS)	RDS IC reset signal	L:RESET ON
* 44	P03/INTP3/C10	I	CLK (RDS)	RDS clock	———

CIRCUIT DESCRIPTION

Pin NO.	Pin name	Port I/O	Name	Description	Active
* 45	P02/INTP2	I	DATA (RDS)	RDS data	——
* 46	P01/INTP1	I	START (RDS)	RDS data start signal	L:START
47	P00/INTP0	I	REM	Remote control input	——
48	IC	——	Vss		——
49	P72	OUT	VIDEO SEL 1/2	Video selector	H:V 1,4 L:V 2,3
50	P71	OUT	$\overline{\text{STANDBY LED}}$	Standby LED	L:LED ON
51	P70	OUT	DATA MUTE	Data mute	H:MUTE ON
52	Vcc	——	Vcc	Microprocesser power supply	——
53	P127/FIP33	OUT	$\overline{\text{MUTE}}$	Analog mute control	L:MUTE ON
54	P126/FIP32	OUT	$\overline{\text{NOISE MUTE}}$	Noise mute control	L:MUTE ON
55	P125/FIP31	IN	KR4	Key return 4	——
56	P124/FIP30	IN	KR3	Key return 3	——
57	P123/FIP29	IN	KR2	Key return 2	——
58	P122/FIP28	IN	KR1	Key return 1	——
59	P121/FIP27	IN	KR0	Key return 0	——
60	P120/FIP26	OUT	P16/KS8	FL segment 16/key scan 8	——
61	P117/FIP25	OUT	P15/KS7	FL segment 15/key scan 7	——
62	P116/FIP24	OUT	P14/KS6	FL segment 14/key scan 6	——
63	P115/FIP23	OUT	P13/KS5	FL segment 13/key scan 5	——
64	P114/FIP22	OUT	P12/KS4	FL segment 12/key scan 4	——
65	P113/FIP21	OUT	P11/KS3	FL segment 11/key scan 3	——
66	P112/FIP20	OUT	P10/KS2	FL segment 10/key scan 2	——
67	P111/FIP19	OUT	P9/KS1	FL segment 09/key scan 1	——
68	P110/FIP18	OUT	P8/KS0	FL segment 08/key scan 0	——
69	P107/FIP17	OUT	P7	FL segment 01	——
70	P106/FIP16	OUT	P6	FL segment 02	——
71	V load	——	V load	FL drive power supply	——
72	P105/FIP15	OUT	P5	FL segment 03	——
73	P104/FIP14	OUT	P4	FL segment 04	——
74	P103/FIP13	OUT	P3	FL segment 05	——
75	P102/FIP12	OUT	P2	FL segment 06	——
76	P101/FIP11	OUT	P1	FL segment 07	——
77	P100/FIP10	OUT	2G	FL grid 2	——
78	P97/FIP9	OUT	3G	FL grid 3	——
79	P96/FIP8	OUT	4G	FL grid 4	——
80	P95/FIP7	OUT	5G	FL grid 5	——

※ The RDS PTY AF search always corresponds to a span search of 100kHz. Therefore, a span search of 50 kHz cannot be performed.

8 KEY MATRIX

Table 8-1 Key Matrix List

KRTN KSCN	KR0	KR1	KR2	KR3	KR4
KS0	7 (10KEY)	6 (10KEY)	N. B. CIRCUIT	PRO LOGIC	DIRECT
KS1	8 (10KEY)	5 (10KEY)	SP. B	LINE STRAIGHT	MEMORY
KS2	9 (10KEY)	4 (10KEY)	SP. A	BALANCE L	PTY *2
KS3	0 (10KEY)	3 (10KEY)	CENTER MODE	BALANCE R	AF *2
KS4	+10	2 (10KEY)	DSP	———	BAND
KS5	———	1 (10KEY)	DSP LOGIC	———	TUNER DOWN
KS6	AUTO/MANUAL	POWER	3 STEREO	VISUAL FIX *1	TUNER UP
KS7	DISPLAY *2	———	———	MULTI LEVEL MODE	TAPE 2
KS8	DSW0 *5	DSW1 *5	DSW2 *5	DSW3 *3	DSW4 *4

*1 For KR-V8070 only.
*2 The destination is E3 type only. For another destination, there is no key. (RDS function)
*3 Used for description of each model.
*4 Used for operation selector of 8- or 16- bit serial data.
*5 Used for discrimination of the destination. (Refer to the Destination List of Tuner in Table 5-1.)

8.1 Model Discrimination List

- KS8 and KR3 are used as a DSW switch for model discrimination. Each data is shown in the table below. Each model is discriminated only during reset initialization simultaneously with the discrimination of the destination.
- KS8 and KR4 are used for the operation selection of 8- or 16- bit serial data. The 8- and 16- bit serial data are selected only during reset initialization.

Table 8-2 Model Discrimination List

DSW Model	DSW3 (D26)
KR-V8070	0
KR-V7070	1

Table 8-3 8-/16- bit Selection

DSW Serial cord	DSW4
8- bit serial	0
16- bit serial	1

ADJUSTMENT

ENGLISH (E, T TYPE)

No.	ITEM	INPUT SETTINGS	OUTPUT SETTINGS	TUNER SETTINGS	ALIGNMENT POINTS	ALIGN FOR	FIG.
FM SECTION		SELECTOR:FM					
1	DISCRIMINATOR	(A) 98.0MHz 1kHz,±40kHz dev.(E,T type) 60dBμ(ANT input)	Connect a DC voltmeter between TP3 and TP4 (X05-)	AUTO or MONO 98.0MHz	1.3 (X05-)	0V	(a)
2	DISTORTION (STEREO)	(C) 98.0MHz 1kHz,±40kHz dev. Pilot:±6kHz dev. (E,T type) 60dBμ(ANT input)	(B)	AUTO 98.0MHz	IFT (W02-)	Minimum distortion.	(a)
AUDIO SECTION							
<1>	IDLE CURRENT		(E) Connect a DC voltmeter across CP1(L) CP2(R) CP3(CENTER) CP4(REAR)	Volume:0	VR1(L) VR2(R) VR3(CENTER) VR4(REAR) (X07-)	22mV	(b)

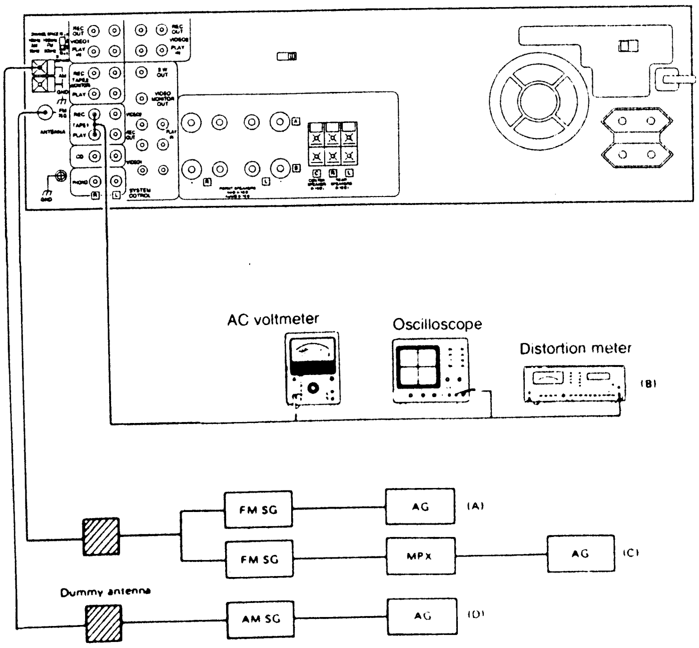
KR-V7070

ADJUSTMENT/AJUSTES

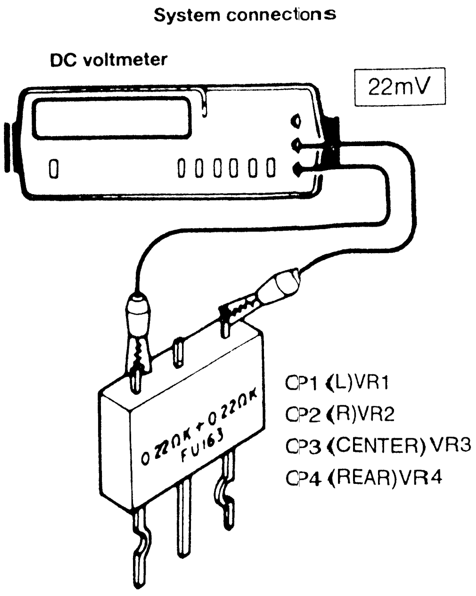
ESPANÓL (E, T TYPE)

Núm.	ÍTEM	AJUSTES DE ENTRADA	AJUSTES DE SALIDA	AJUSTES DEL SINTONIZADOR	PUNTOS DE ALINEACIÓN	ALINEACIÓN PARA	FIG.
SECCIÓN DE FM		SELECTOR;FM					
1	DISCRIMINADOR	(A) 98.0MHz 1kHz,±40kHz dev.(E,T type) 60dBμ(Entrada de antena)	Conecte un voltíbetro de CC entre TP3 y TP4 (X05-)	AUTO or MONO 98.0MHz	1.3 (X05-)	0V	(a)
2	DISTORSIÓN (ESTÉREO)	(C) 98.0MHz 1kHz,±40kHz dev. Pilot:±6kHz dev. (E,T type) 60dBμ(Entrada de antena)	(B)	AUTO 98.0MHz	IFT (W02-)	Distorsión mínima.	(a)
A menos que se especifique otra cosa, los controles individuales deberán ajustrarse de la forma sigufiente: POWER:ON SPEAKER:B SELECTOR:PHONO							
1	OCIOSA CORRIENTE	-	Conecte un voltimetro de CC entre CP1(L) y CP2(R) y CP3(CENTER) y CP4(REAR)	Volume:0	VR1(L) VR2(R) VR3(CENTER) VR4(REAR) (X07-)	22mV	(b)

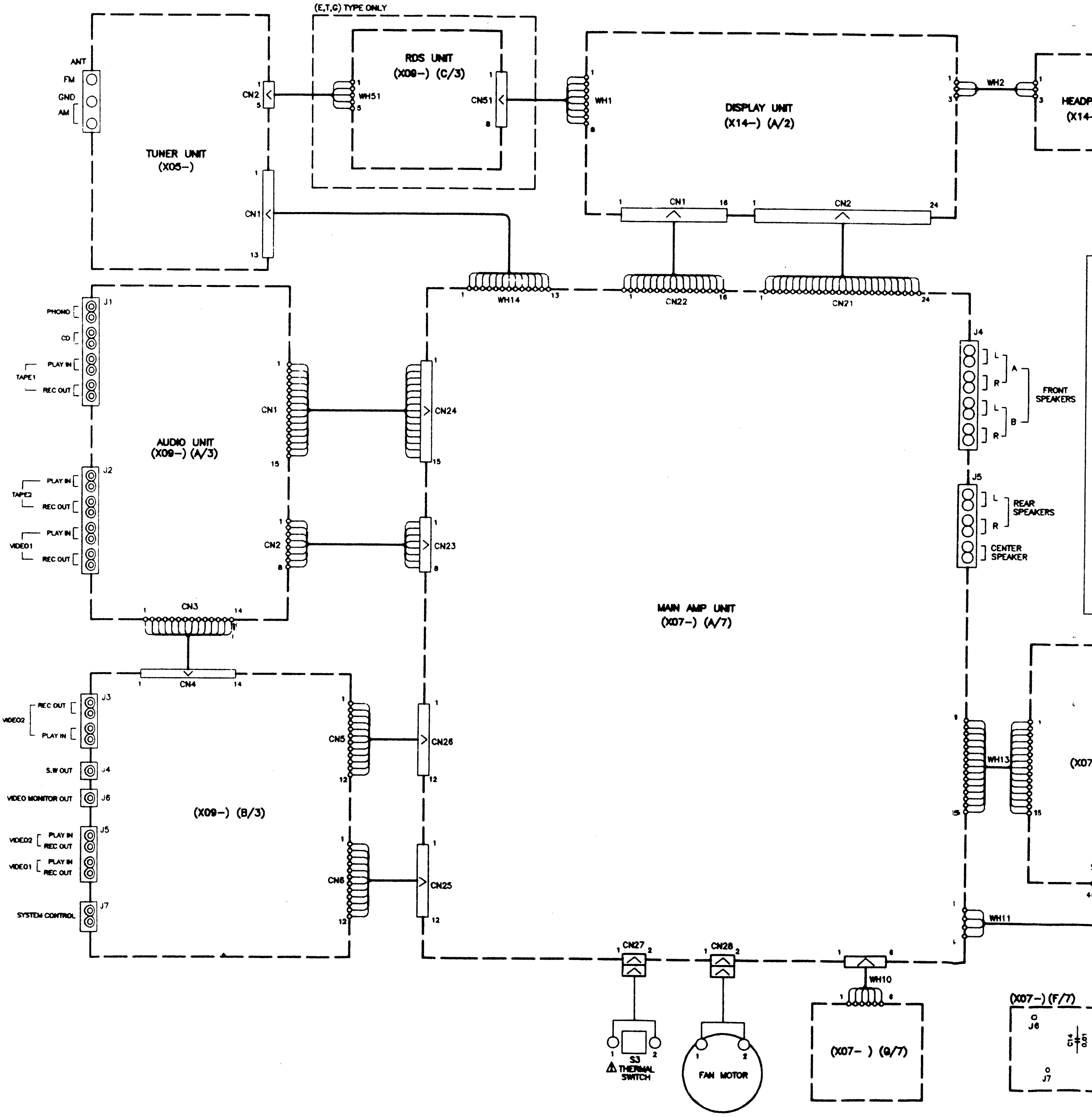
(a)

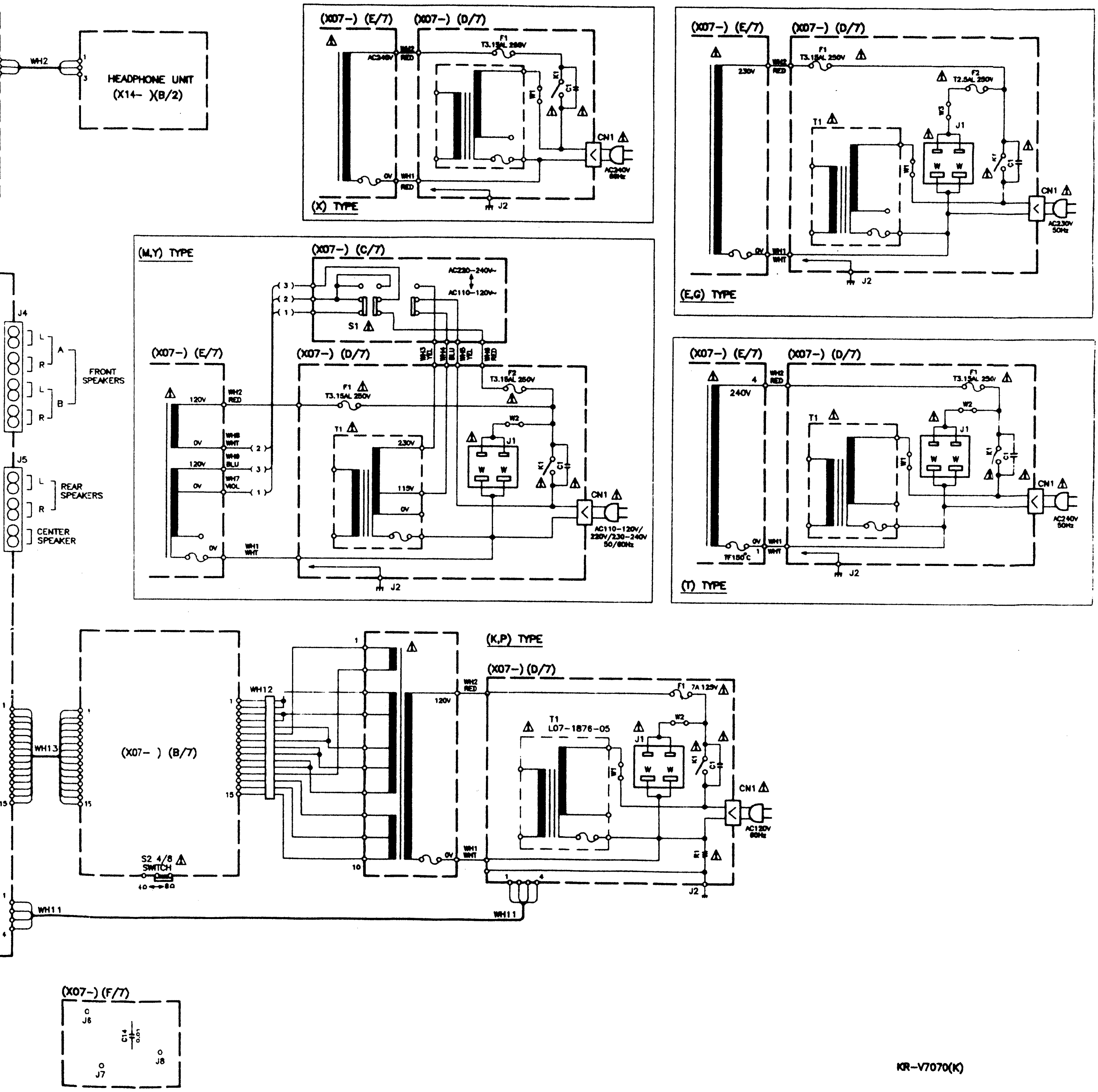

AC voltmeter
Oscilloscope
Distortion meter
(B)
FM SG
AG
(A)
FM SG
MPX
AG
(C)
Dummy antenna
AM SG
AG
(D)

(b)


System connections
DC voltmeter
22mV
0
000000
0.220K+0.220K
FU163
CP1 (L)VR1
CP2 (R)VR2
CP3 (CENTER) VR3
CP4 (REAR)VR4

WIRING DIAGRAM

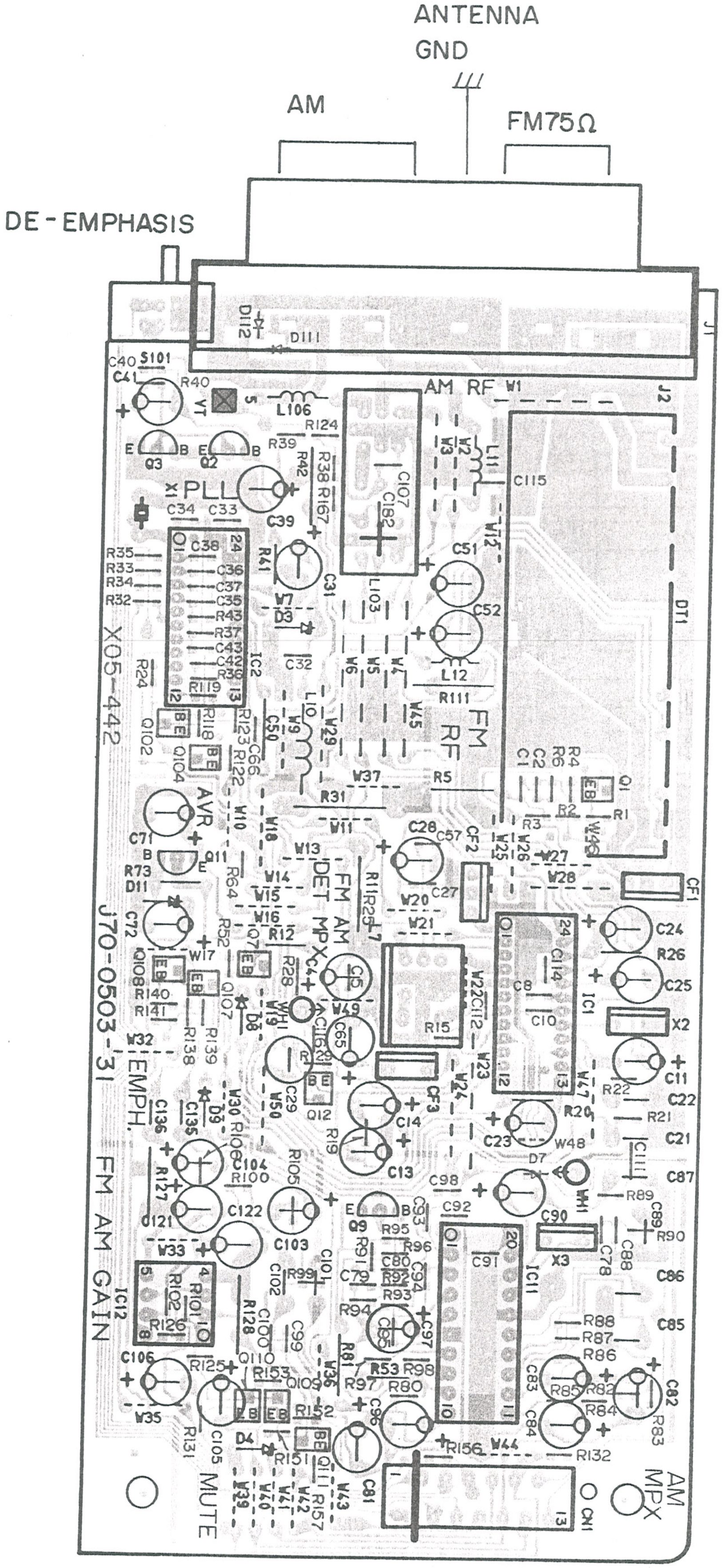

(E,T,C) TYPE ONLY
ANT
FM
GND
AM
TUNER UNIT
(X05–)
CN2
CN1
RDS UNIT
(X09–) (C/3)
WH51
CN51
WH1
DISPLAY UNIT
(X14–) (A/2)
WH2
HEADP
(X14-
CN1
CN2
WH14
CN22
CN21
PHONO
CD
PLAY IN
TAPE1
REC OUT
J1
AUDIO UNIT
(X09–) (A/3)
CN1
CN24
J2
PLAY IN
TAPE2
REC OUT
PLAY IN
VIDEO1
REC OUT
CN2
CN23
CN3
CN4
J4
L
R
A
L
R
B
FRONT SPEAKERS
J5
L
R
REAR SPEAKERS
CENTER SPEAKER
MAIN AMP UNIT
(X07–) (A/7)
REC OUT
VIDEO2
PLAY IN
J3
S.W OUT
J4
VIDEO MONITOR OUT
J6
VIDEO2
PLAY IN
REC OUT
VIDEO1
PLAY IN
REC OUT
J5
SYSTEM CONTROL
J7
(X09–) (B/3)
CN5
CN26
CN6
CN25
WH13
(X07
WH11
CN27
CN28
WH10
S3
THERMAL SWITCH
FAN MOTOR
(X07–) (G/7)
(X07–) (F/7)
J6
J7
C14


WH2
1
3
HEADPHONE UNIT
(X14-)(B/2)
J4
L
A
R
L
B
R
FRONT SPEAKERS
J5
L
REAR SPEAKERS
R
CENTER SPEAKER
(X07-) (E/7)
(X07-) (D/7)
F1
T3.15AL 250V
AC240V
WH2
RED
K1
C1
W1
CN1
AC240V
60Hz
0V
WH1
RED
J2
(X) TYPE
(X07-) (E/7)
(X07-) (D/7)
F1
T3.15AL 250V
230V
WH2
RED
F2
T2.5AL 250V
W3
T1
J1
W
W
K1
C1
W1
CN1
AC230V
50Hz
0V
WH1
WHT
J2
(E,G) TYPE
(M,Y) TYPE
(X07-) (C/7)
AC220-240V~
AC110-120V~
(3)
(2)
(1)
S1
(X07-) (E/7)
(X07-) (D/7)
WH3 YEL
WH4 BLU
WH5 YEL
WH6 RED
F2
T3.15AL 250V
F1
T3.15AL 250V
120V
WH2
RED
0V
WH8
WHT
(2)
120V
WH9
BLU
(3)
0V
WH7
VIOL
(1)
0V
WH1
WHT
T1
230V
115V
0V
W2
J1
W
W
K1
C1
CN1
AC110-120V/
220V/230-240V
50/60Hz
J2
(X07-) (E/7)
(X07-) (D/7)
4
240V
WH2
RED
F1
T3.15AL 250V
T1
W2
J1
W
W
W1
K1
C1
CN1
AC240V
50Hz
0V
1
TF150°C
WH1
WHT
J2
(T) TYPE
1
WH12
1
15
WH13
1
15
(X07-) (B/7)
15
1
10
S2 4/8
SWITCH
4Ω ←→ 8Ω
(K,P) TYPE
(X07-) (D/7)
WH2
RED
120V
F1
7A 125V
T1
L07-1876-05
W2
J1
W
W
W1
K1
C1
CN1
AC120V
60Hz
R1
0V
WH1
WHT
1
4
J2
1
WH11
4
WH11
(X07-) (F/7)
J6
C14
J8
J7

KR-V7070(K)

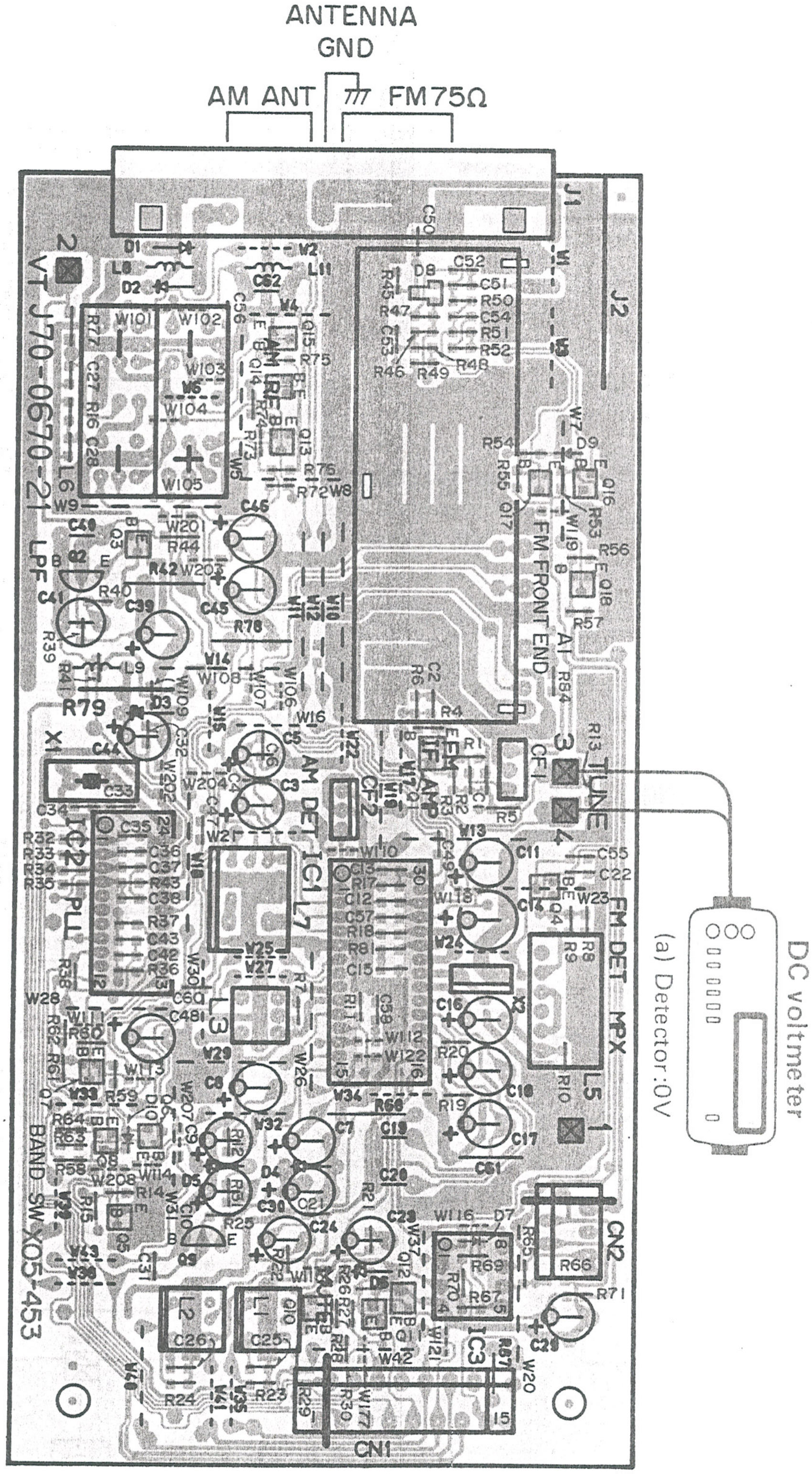
PC BOARD (Component side view)

TUNER UNIT (X05-4460-13):KS, PS, -23:YS, MS, -73:XS


ANTENNA
GND
AM
FM75Ω
DE-EMPHASIS
J1
J2
D112
D111
S101
C40
C41
R40
VT
5
L106
R124
AM RF
W1
W2
W3
L11
C115
Q3
Q2
E
B
R39
R42
R38
R167
C107
C182
X1
PLL
C34
C33
C39
C38
R35
R33
R34
R32
C36
C37
C35
R43
R37
C43
C42
R36
R119
IC2
R41
C31
L103
C51
C52
W7
D3
C32
W6
W5
W4
L12
R111
W12
DT1
X05-442
R24
Q102
R118
R123
R122
C66
Q104
C50
W9
L10
W29
W45
FM RF
C1
C2
R6
R4
Q1
AVR
W10
W18
W37
R5
R31
R2
R1
R3
W11
C28
C57
CF2
W25
W26
W27
W46
C71
Q11
R73
D11
R64
W13
W14
W15
FM DET
AM MPX
R11
R125
C27
W20
W28
CF1
W16
R12
W21
C72
W17
R52
Q107
R28
C4
C5
W22
C112
C114
C8
C10
IC1
C24
R26
C25
Q108
R140
R141
D8
W19
W49
C65
R15
X2
W32
R138
R139
C16
Q12
C29
W50
R19
CF3
C14
W24
W23
C23
W47
R22
R20
C11
C22
R21
C21
J70-0503-31
EMPH.
C136
C135
D9
W30
R106
R104
R100
R105
R127
C13
C98
W48
D7
C111
C87
W41
R89
C89
R90
C121
C122
E
B
Q9
C93
R95
C92
C90
X3
C78
C88
W33
C103
C101
R91
R96
C80
C94
C91
IC11
C86
FM AM GAIN
IC12
R101
R102
R126
R128
C102
R99
C79
R92
R93
C100
C99
R94
C95
C97
R88
R87
C85
R86
C106
R125
Q110
R153
Q109
W36
R81
R53
R98
R97
R80
C96
C83
R85
R82
R84
C82
R83
W35
R131
C105
D4
R152
R151
Q111
R157
W38
W39
W40
W41
W42
W43
C81
R156
W44
C84
R132
MUTE
CN1
AM MPX
13
10
20
24
12
1
4
5
8

Refer to the schematic diagram for the values of resistors and capacitors.

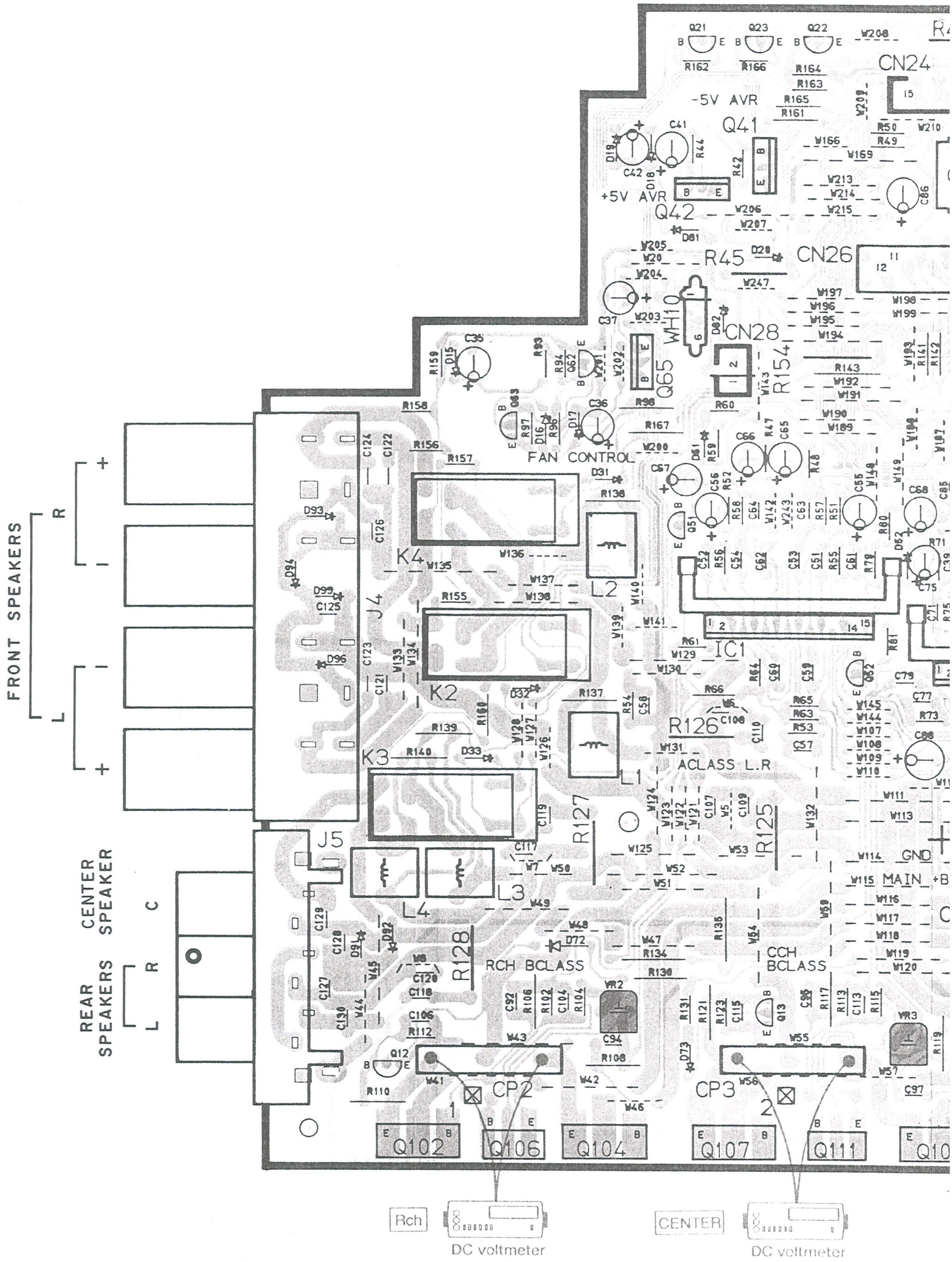
TUNER UNIT (X05-4532-70):TS, ES, GS


ANTENNA
GND
AM ANT
FM75Ω
J1
J2
VT J70-0670-21
LPF
FM FRONT END
AM DET
FM IF AMP
CF1
CF2
TUNE
IC1
IC2 PLL
IC3
FM DET MPX
BAND SW X05-453
CN1
CN2
X1
X2
L1
L2
L3
L5
L6
L7
L8
L9
L11
DC voltmeter
(a) Detector:0V

Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Component side view)

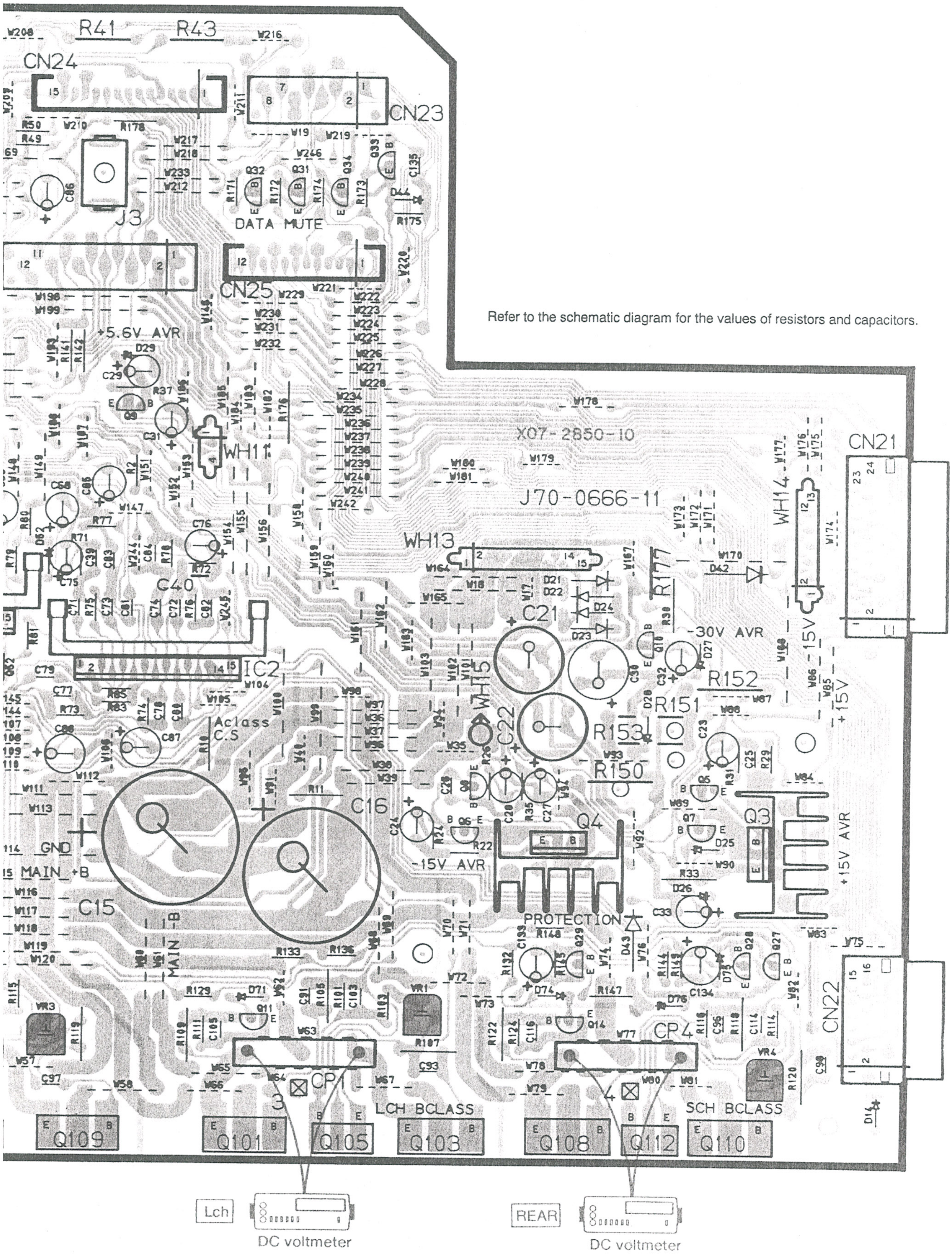
MAIN AMP UNIT (X07-2850-10):KS, PS, -21:MS, -51:TS, -71:XS, 2-71:ES, GS, 2-91:YS


FRONT SPEAKERS
R
L
+
−
CENTER SPEAKER
C
REAR SPEAKERS
R
L
J4
J5
K4
K2
K3
L1
L2
L3
L4
IC1
Q41
Q42
Q65
CN24
CN26
CN28
WH10
-5V AVR
+5V AVR
FAN CONTROL
ACLASS L.R
RCH BCLASS
CCH BCLASS
R45
R126
R127
R125
R128
R154
VR2
VR3
CP2
CP3
1
2
Q102
Q106
Q104
Q107
Q111
GND
MAIN +B
Rch
DC voltmeter
CENTER
DC voltmeter

(b) IDLE CURRENT : 22mV

(b) IDLE CURRENT : 22mV

Refer to the schematic diagram for the values of resistors and capacitors.


R41
R43
CN24
CN23
J3
DATA MUTE
CN25
+5.6V AVR
WH11
X07-2850-10
J70-0666-11
CN21
WH14
WH13
WH15
C40
IC2
Aclass C.S
C21
C22
-30V AVR
R152
R151
R153
R150
C16
C15
GND
MAIN +B
-15V AVR
Q4
Q3
+15V AVR
15V
+15V
PROTECTION
CN22
CP1
CP4
LCH BCLASS
SCH BCLASS
Q109
Q101
Q105
Q103
Q108
Q112
Q110
3
4
Lch
REAR
DC voltmeter
DC voltmeter

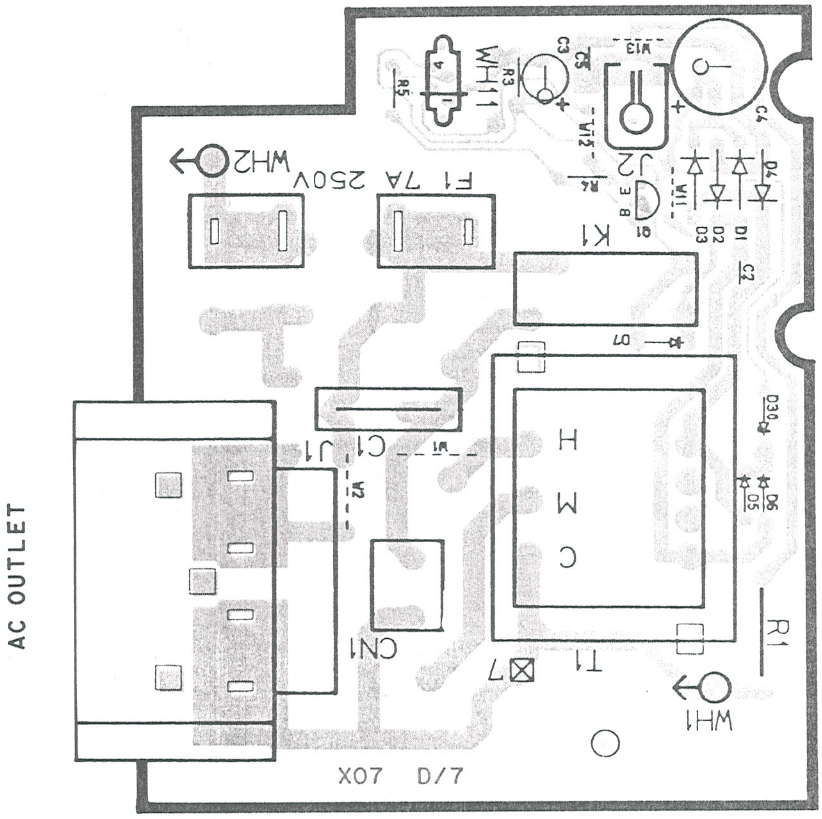
(b) IDLE CURRENT : 22mV

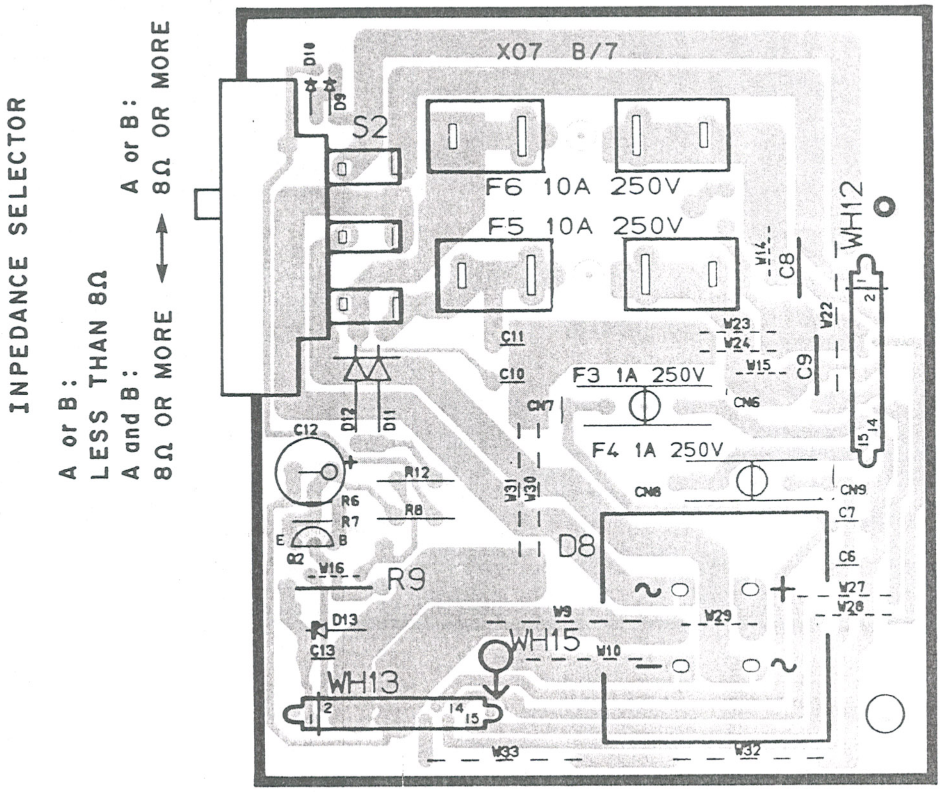
(b) IDLE CURRENT : 22mV

2mV

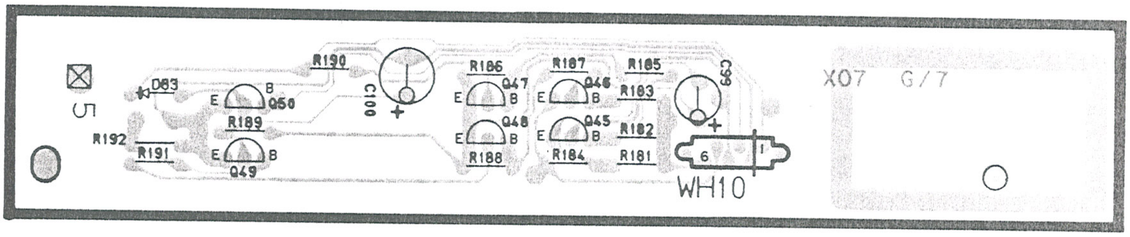
PC BOARD (Component side view)

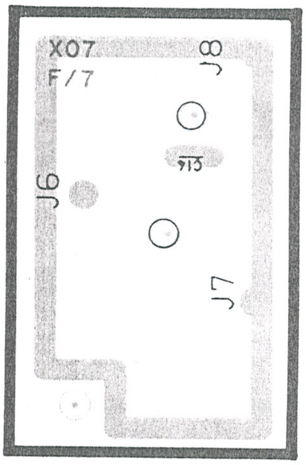
MAIN AMP UNIT (X07-2850-10):KS, PS, -21:MS, -51:TS, -71:XS, 2-71:ES, G

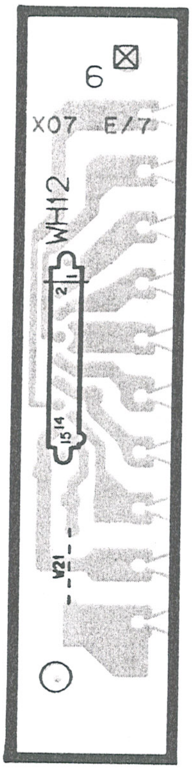

AC OUTLET
WH11
R3
C3
W13
C4
J2
R5
WH2
F1 7A 250V
Q1
K1
D1
D2
D3
D4
C2
D7
D30
H
M
C
C1
J1
W1
W2
CN1
T1
D5
D6
R1
WH1
X07 D/7

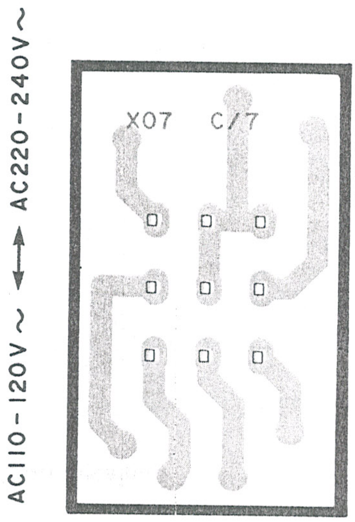

INPEDANCE SELECTOR
A or B : LESS THAN 8Ω
A and B : 8Ω OR MORE
A or B : 8Ω OR MORE
X07 B/7
D10
D9
S2
F6 10A 250V
F5 10A 250V
WH12
W14
C8
W22
W23
W24
C11
C10
F3 1A 250V
W15
C9
CN6
CN7
F4 1A 250V
D12
D11
C12
R12
R6
R7
R8
W31
W30
CN8
CN9
C7
D8
Q2
W16
R9
C6
W27
W28
D13
W9
W29
WH15
W10
C13
WH13
W33
W32

2-71:ES, GS, 2-91:YS


5
D83
R190
C100
R186
R187
R185
Q47
Q46
R183
C99
X07 G/7
E
B
Q50
R189
R192
R191
Q49
Q48
Q45
R182
R188
R184
R181
6
1
WH10


X07
F/7
J8
C14
J6
J7

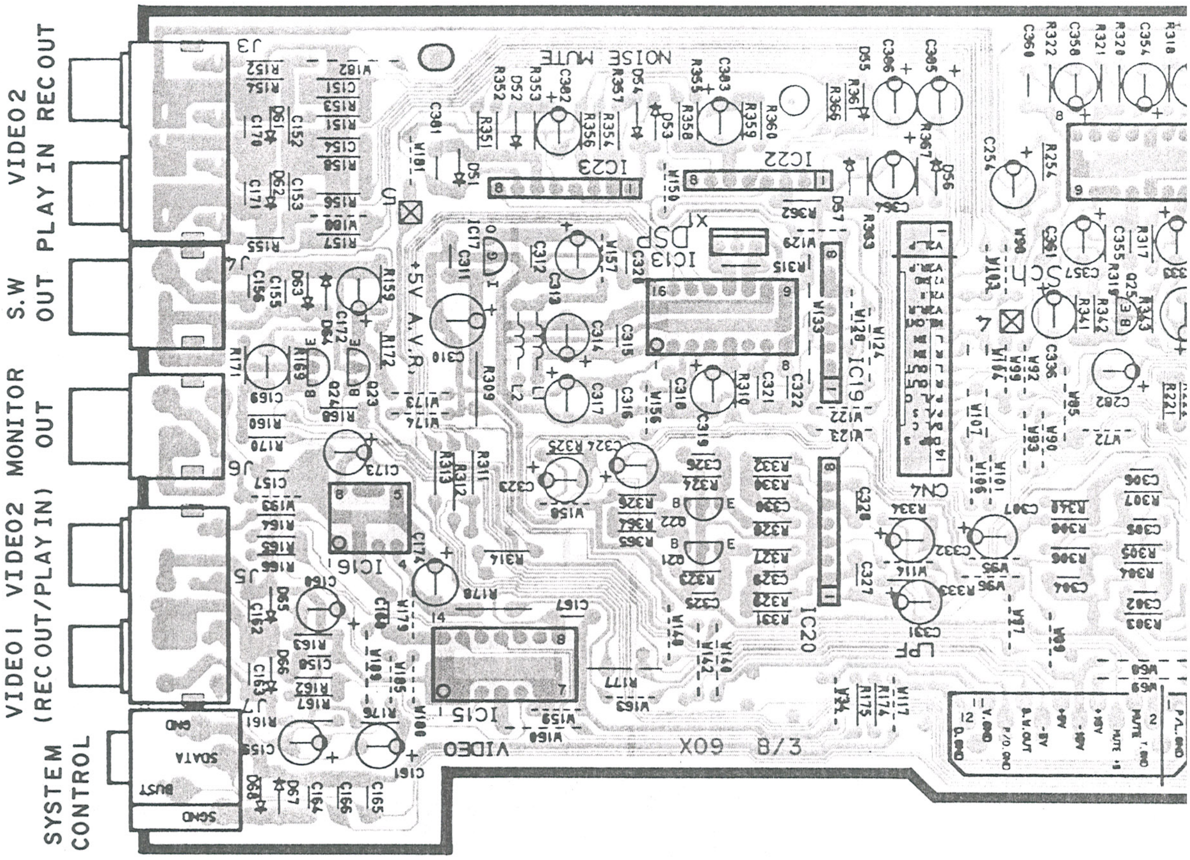

6
X07 E/7
WH12
1
2
14
15
W21

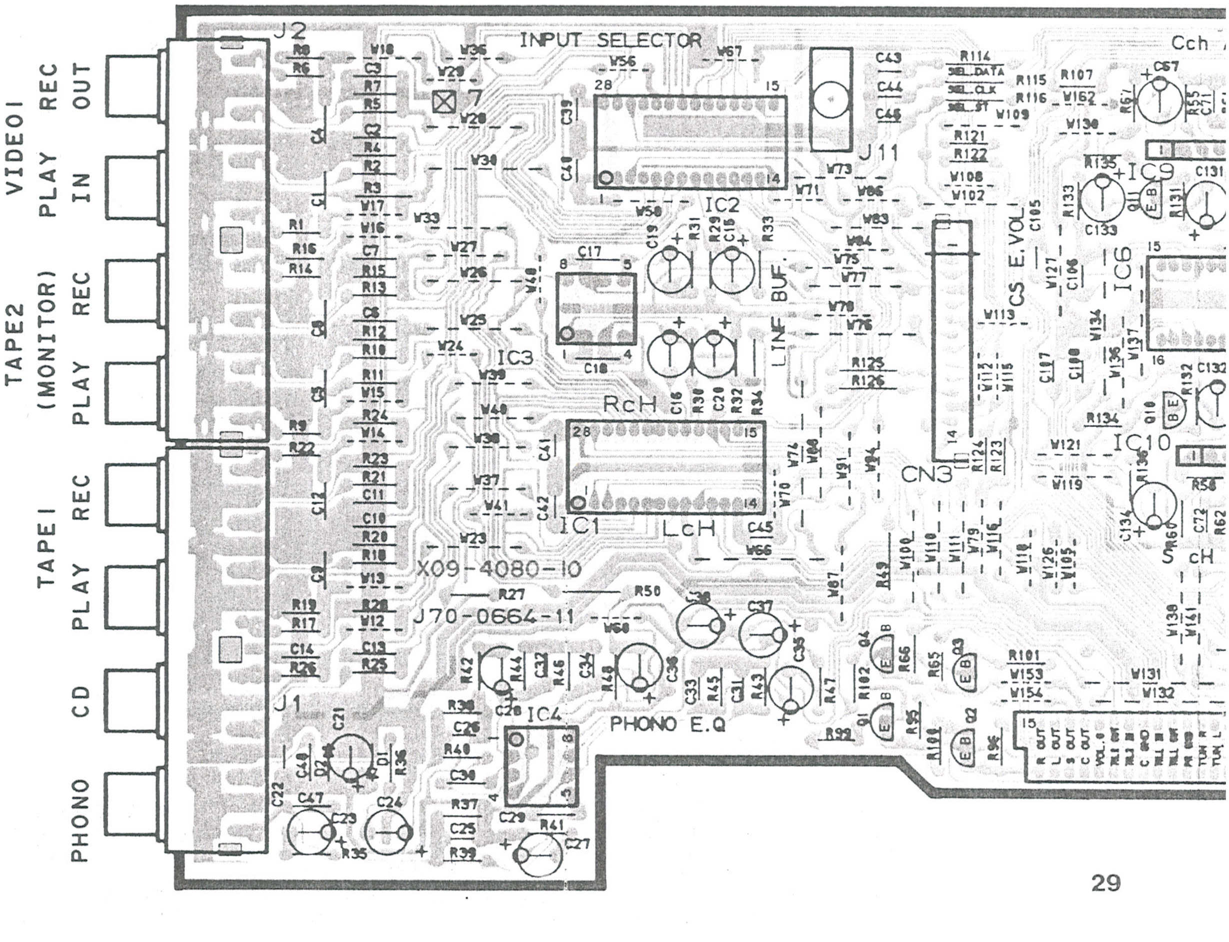

AC110-120V~ ⟷ AC220-240V~
X07 C/7

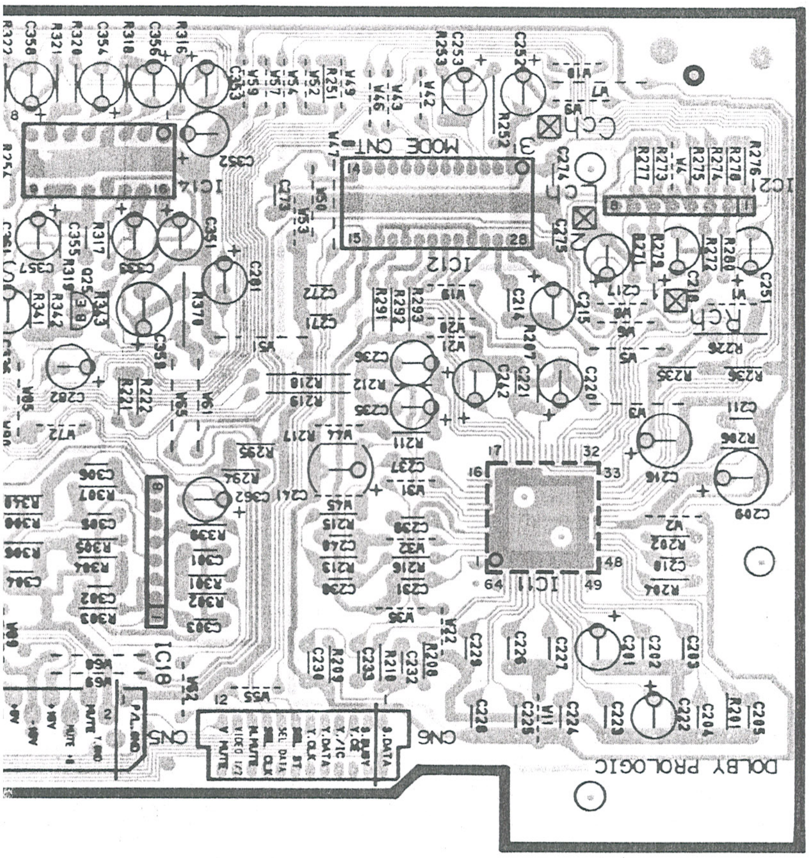
Refer to the schematic diagram for the values of resistors and capacitors.

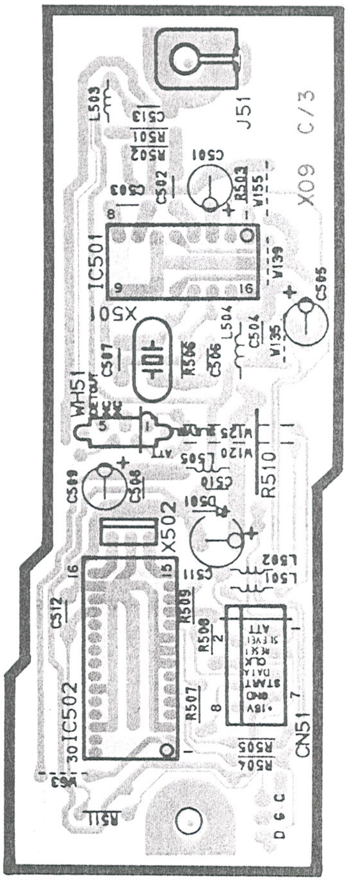
PC BOARD (Component side view)

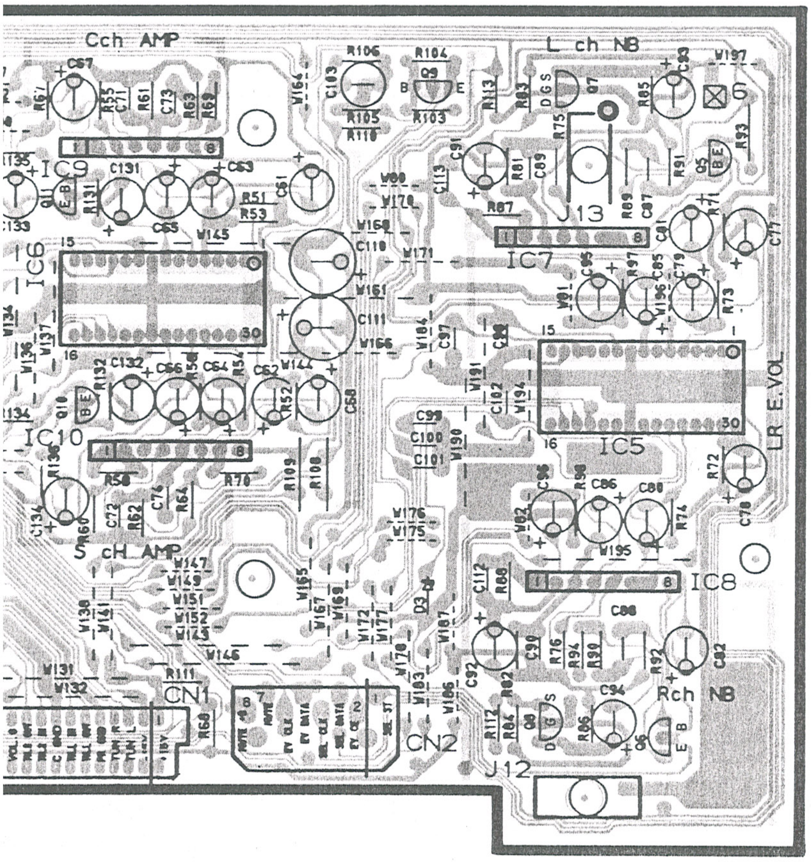
AUDIO UNIT (X09-4080-10):KS, PS, YS, MS, XS, 2-71:TS, ES, GS


VIDEO2 PLAY IN REC OUT
S.W OUT
MONITOR OUT
VIDEO2 (PLAY IN)
VIDEO1 VIDEO2 (REC OUT/PLAY IN)
SYSTEM CONTROL
J3
J4
J6
J5
J7
NOISE MUTE
IC22
IC23
DSP
IC13
IC19
IC20
IC15
IC16
IC17
CN4
LPF
+5V A.V.R.
VIDEO
X09 B/3


VIDEO1 PLAY IN REC OUT
TAPE2 (MONITOR) PLAY REC
TAPE1 PLAY REC
CD
PHONO
J2
J1
J11
INPUT SELECTOR
IC1
IC2
IC3
IC4
IC6
IC9
IC10
RcH
LcH
LINE BUF
E. VOL
CN3
Cch
cH
PHONO E.Q
X09-4080-10
J70-0664-11


MODE CNT
IC12
IC11
IC17
IC18
IC2
Cch
Lch
Rch
CN5
CN6
DOLBY PROLOGIC

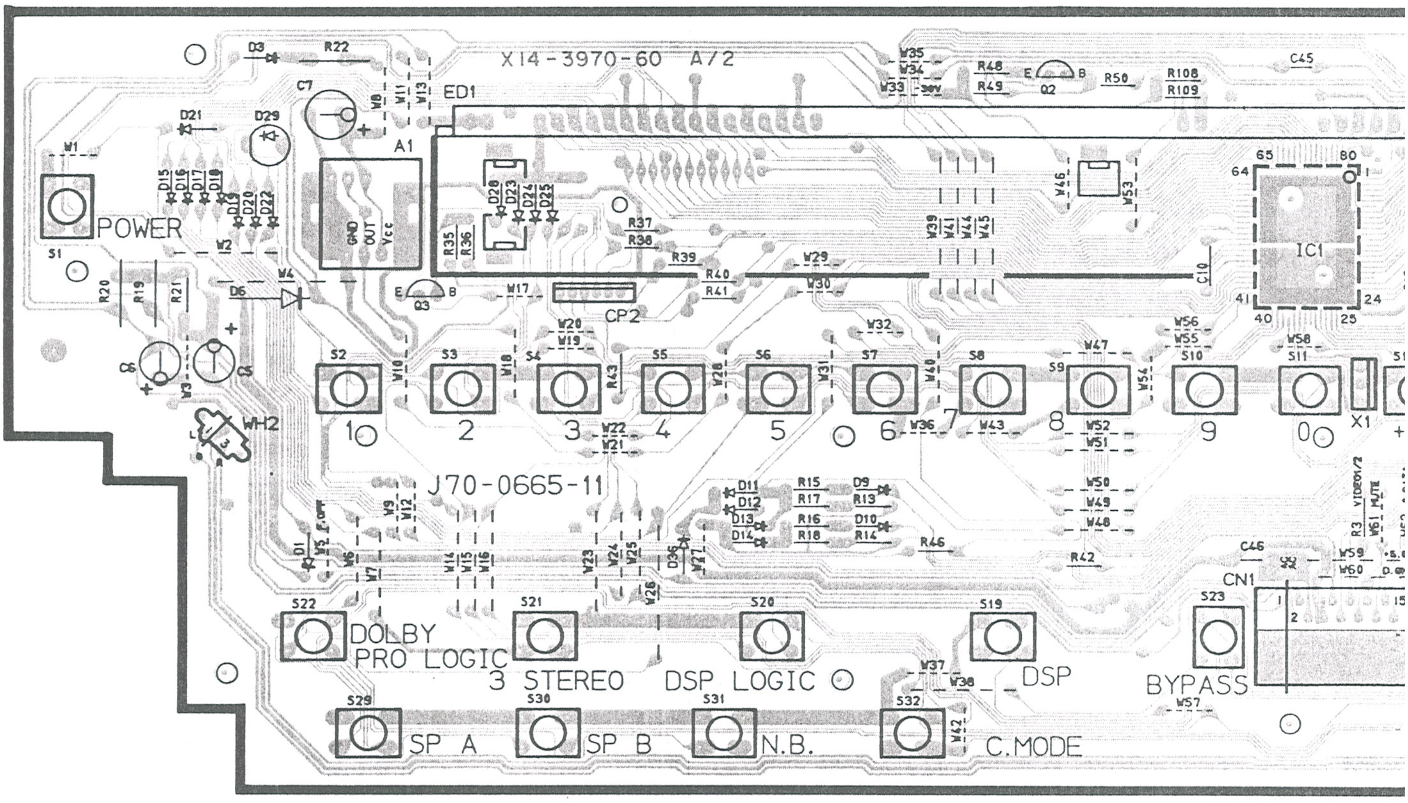

J51
X09 C/3
IC501
IC502
X501
X502
WH51
R510
CN51
D G C

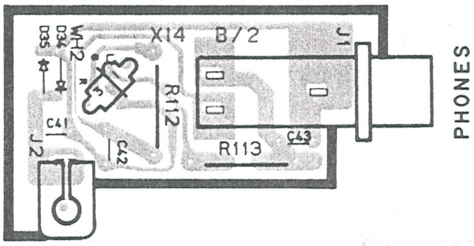

Cch AMP
L ch NB
IC9
IC6
IC7
IC5
IC10
IC8
J13
J12
LR E.VOL
cH AMP
CN1
CN2
Rch NB

Refer to the schematic diagram for the values of resistors and capacitors.

PC BOARD (Component side view)

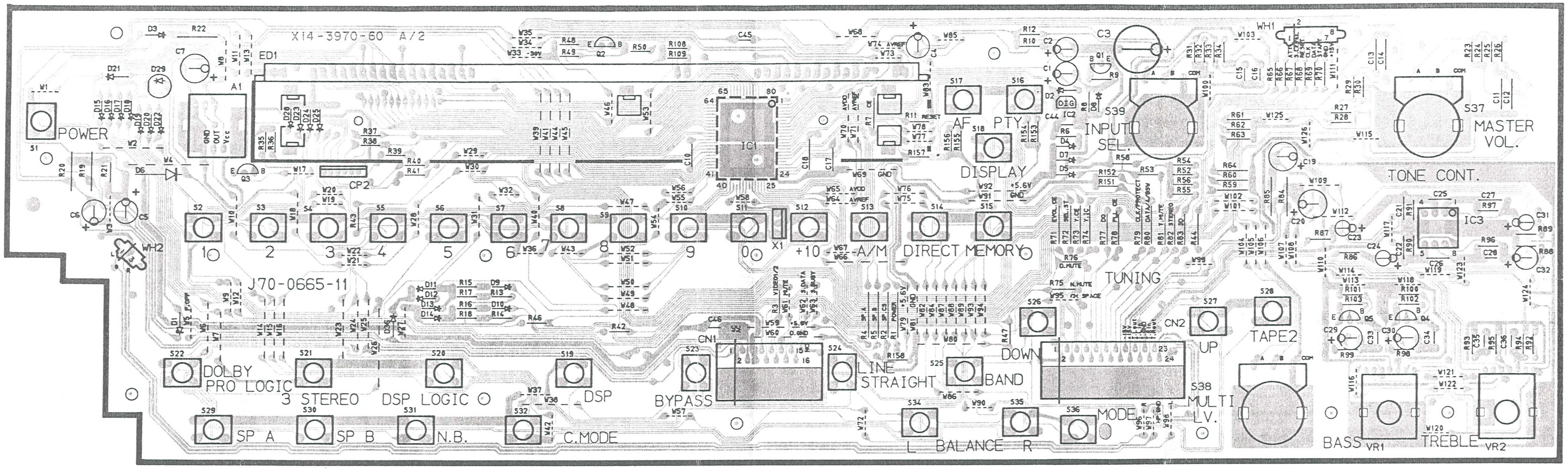
DISPLAY UNIT (X14-3970-10):KS, PS, -21:YS, MS, -71:XS, 2-71:TS, ES, GS


X14-3970-60 A/2
J70-0665-11
ED1
A1
GND OUT Vcc
IC1
CP2
CN1
X1
WH2
POWER
S1
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
1
2
3
4
5
6
7
8
9
0
S22
DOLBY PRO LOGIC
S21
3 STEREO
S20
DSP LOGIC
S19
DSP
S23
BYPASS
S29
SP A
S30
SP B
S31
N.B.
S32
C.MODE
Q2
Q3
C7
C8
C9
C10
C45
C46
D1
D3
D6
D9
D10
D11
D12
D13
D14
D15
D16
D17
D18
D19
D20
D21
D22
D23
D24
D25
D28
D29
D36
R3
R13
R14
R15
R16
R17
R18
R19
R20
R21
R22
R35
R36
R37
R38
R39
R40
R41
R42
R43
R46
R48
R49
R50
R108
R109
W1
W2
W3
W4
W5
W6
W7
W8
W9
W10
W11
W12
W13
W14
W15
W16
W17
W18
W19
W20
W21
W22
W23
W24
W25
W26
W27
W28
W29
W30
W31
W32
W33
W34
W35
W36
W37
W38
W39
W40
W41
W42
W43
W44
W45
W46
W47
W48
W49
W50
W51
W52
W53
W54
W55
W56
W57
W58
W59
W60
W61
64
65
80
41
40
25
24

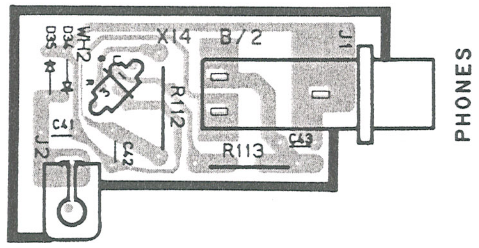

X14 B/2
J1
J2
WH2
D34
D35
R112
R113
C41
C42
C43
PHONES

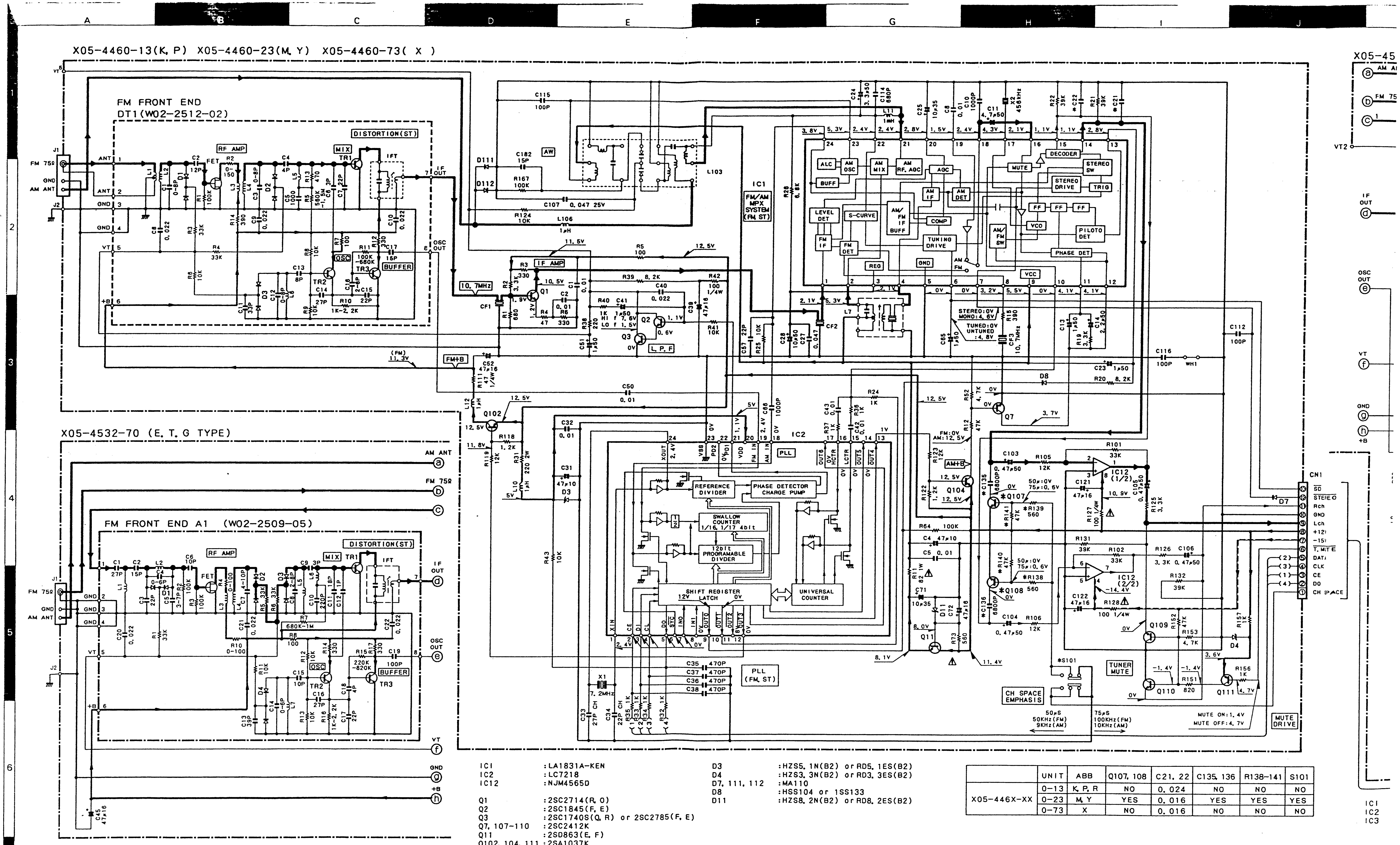
PC BOARD (Component side view)

DISPLAY UNIT (X14-3970-10):KS, PS, -21:YS, MS, -71:XS, 2-71:TS, ES, GS


X14-3970-60 A/2
J70-0665-11
ED1
IC1
IC2
IC3
X1
CN1
CN2
WH1
WH2
CP2
POWER
1
2
3
4
5
6
7
8
9
0
+10
A/M
DIRECT MEMORY
AF
PTY
DISPLAY
INPUT SEL.
MASTER VOL.
TONE CONT.
TUNING
DOWN
UP
TAPE2
DOLBY PRO LOGIC
3 STEREO
DSP LOGIC
DSP
BYPASS
LINE STRAIGHT
BAND
MODE
MULTI LV.
L BALANCE R
SP A
SP B
N.B.
C.MODE
BASS
VR1
TREBLE
VR2

Refer to the schematic diagram for the values of resistors and capacitors.

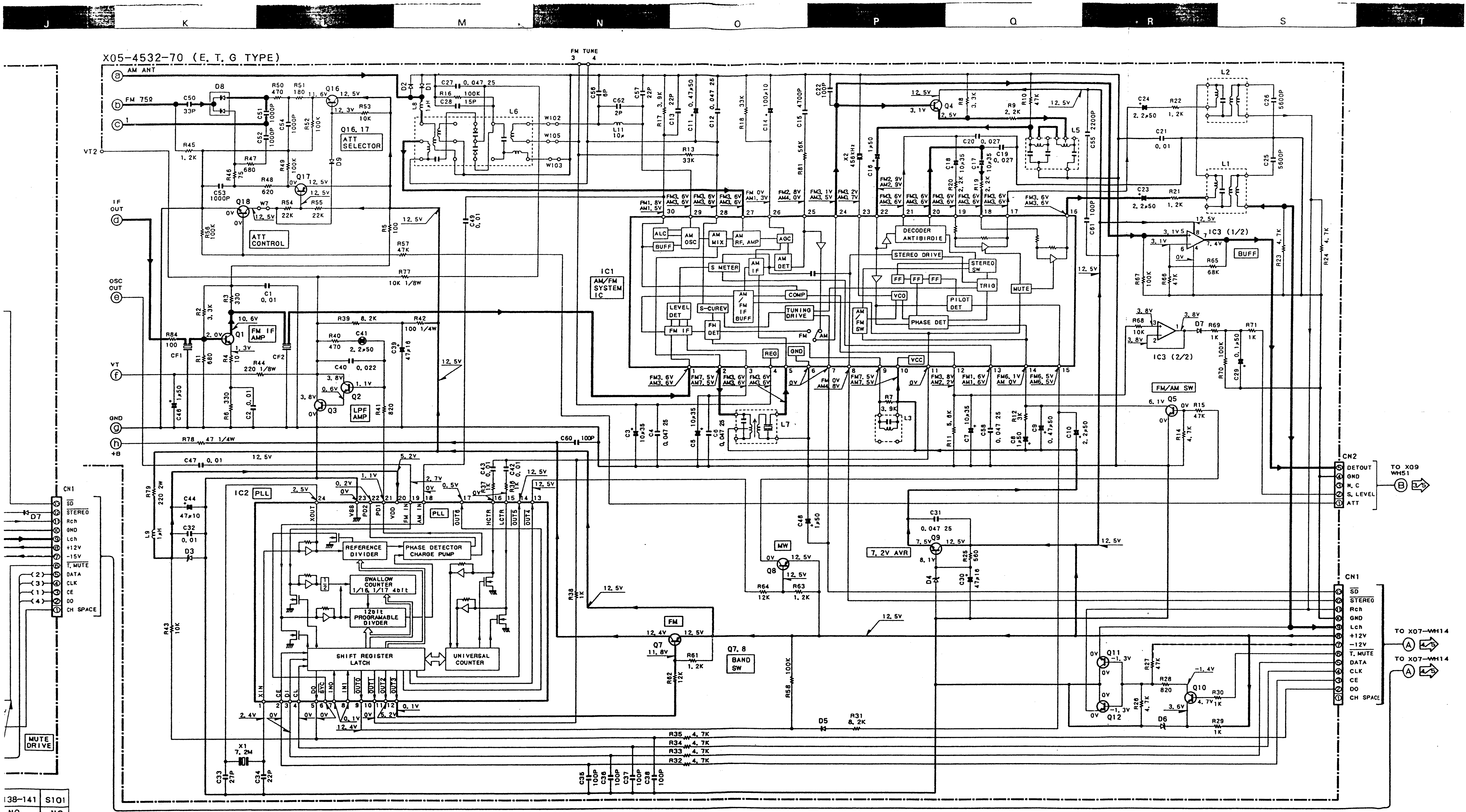

X14 B/2
J1
J2
WH2
D34
D35
R112
R113
C41
C42
C43
PHONES


A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
X05-4460-13(K, P) X05-4460-23(M, Y) X05-4460-73(X)
FM FRONT END
DT1(W02-2512-02)
RF AMP
MIX
DISTORTION(ST)
OSC
BUFFER
FET
TR1
TR2
TR3
IFT
IF OUT
OSC OUT
FM 75Ω
GND
AM ANT
ANT
J1
J2
VT
+B
AW
IF AMP
10.7MHz
CF1
CF2
CF3
L.P.F
FM+B
IC1
FM/AM MPX SYSTEM (FM, ST)
ALC
AM OSC
AM MIX
AM RF, AGC
AGC
BUFF
AM IF
AM DET
LEVEL DET
S-CURVE
AM/FM IF BUFF
COMP
TUNING DRIVE
FM IF
FM DET
REG
GND
AM/FM SW
VCO
PILOTO DET
PHASE DET
VCC
MUTE
DECODER
STEREO SW
STEREO DRIVE
TRIG
FF
STEREO:0V
MONO:4.6V
TUNED:0V
UNTUNED:4.8V
IC2
PLL
REFERENCE DIVIDER
PHASE DETECTOR CHARGE PUMP
SWALLOW COUNTER 1/16, 1/17 4bit
12bit PROGRAMABLE DIVDER
SHIFT REGISTER LATCH
UNIVERSAL COUNTER
PLL (FM, ST)
X1 7.2MHz
IC12 (1/2)
IC12 (2/2)
AM+B
TUNER MUTE
CH SPACE EMPHASIS
50μS 50KHz(FM) 9KHz(AM)
75μS 100KHz(FM) 10KHz(AM)
MUTE ON:1.4V
MUTE OFF:4.7V
MUTE DRIVE
CN1
SD
STEREO
Rch
GND
Lch
+12V
-15V
T. MUTE
DATA
CLK
CE
DO
CH SPACE
X05-4532-70 (E, T, G TYPE)
FM FRONT END A1 (W02-2509-05)
X05-45
VT2
IC1
IC2
IC3

IC1	:	LA1831A-KEN
IC2	:	LC7218
IC12	:	NJM4565D
Q1	:	2SC2714(R, O)
Q2	:	2SC1845(F, E)
Q3	:	2SC1740S(Q, R) or 2SC2785(F, E)
Q7, 107-110	:	2SC2412K
Q11	:	2SD863(E, F)
Q102, 104, 111	:	2SA1037K
D3	:	HZS5.1N(B2) or RD5.1ES(B2)
D4	:	HZS3.3N(B2) or RD3.3ES(B2)
D7, 111, 112	:	MA110
D8	:	HSS104 or 1SS133
D11	:	HZS8.2N(B2) or RD8.2ES(B2)

	UNIT	ABB	Q107, 108	C21, 22	C135, 136	R138-141	S101
X05-446X-XX	0-13	K, P, R	NO	0.024	NO	NO	NO
	0-23	M, Y	YES	0.016	YES	YES	YES
	0-73	X	NO	0.016	NO	NO	NO

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.


J
K
M
N
O
P
Q
R
S
T
X05-4532-70 (E. T. G TYPE)
AM ANT
FM 75Ω
VT2
IF OUT
OSC OUT
VT
GND
+B
FM TUNE
ATT SELECTOR
ATT CONTROL
FM IF AMP
LPF AMP
IC1 AM/FM SYSTEM IC
ALC
AM OSC
AM MIX
AM RF. AMP
AGC
BUFF
S METER
AM IF
AM DET
LEVEL DET
S-CURVE
AM / FM IF BUFF
COMP
TUNING DRIVE
FM IF
FM DET
REG
GND
VCC
AM FM SW
DECODER ANTIBIRDIE
STEREO DRIVE
STEREO SW
FF
TRIG
VCO
PILOT DET
PHASE DET
MUTE
IC3 (1/2)
IC3 (2/2)
FM/AM SW
IC2 PLL
REFERENCE DIVIDER
PHASE DETECTOR CHARGE PUMP
SWALLOW COUNTER 1/16, 1/17 4bit
12bit PROGRAMABLE DIVDER
SHIFT REGISTER LATCH
UNIVERSAL COUNTER
MW
7. 2V AVR
FM
Q7, 8 BAND SW
MUTE DRIVE
CN1
CN2
SD
STEREO
Rch
GND
Lch
+12V
-15V
-12V
T. MUTE
DATA
CLK
CE
DO
CH SPACE
DETOUT
N. C
S. LEVEL
ATT
TO X09 WH51
TO X07-WH14
SIGNAL LINE
GND LINE
+B LINE
—B LINE

KR-V7070(1/5)(E. T. G)

138~141	S101
NO	NO
YES	YES
NO	NO

IC1	:LA1836	Q1	:2SC2714(R, O)	D1, 2, 5	:1SS133 or HSS104
IC2	:LC7218	Q2	:2SC1845(F, E)	D3	:HTZJ5. 1(B) or RD5. 1ES(B2)
IC3	:M5223P	Q3, 4, 5, 16, 18	:2SC4081(R, S)	D4	:HTZJ8. 2(B) or RD8. 2ES(B2)
		Q7, 8, 10, 17	:2SA1576(R, S)	D6	:HTZJ3. 3(B) or RD3. 3ES(B2)
		Q9	:2SD863(E, F)	D7, 9	:MA110
		Q11, 12	:2SD1757K	D8	:1SS268

ed with a high impedance voltmeter. o variations between individual instru-

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

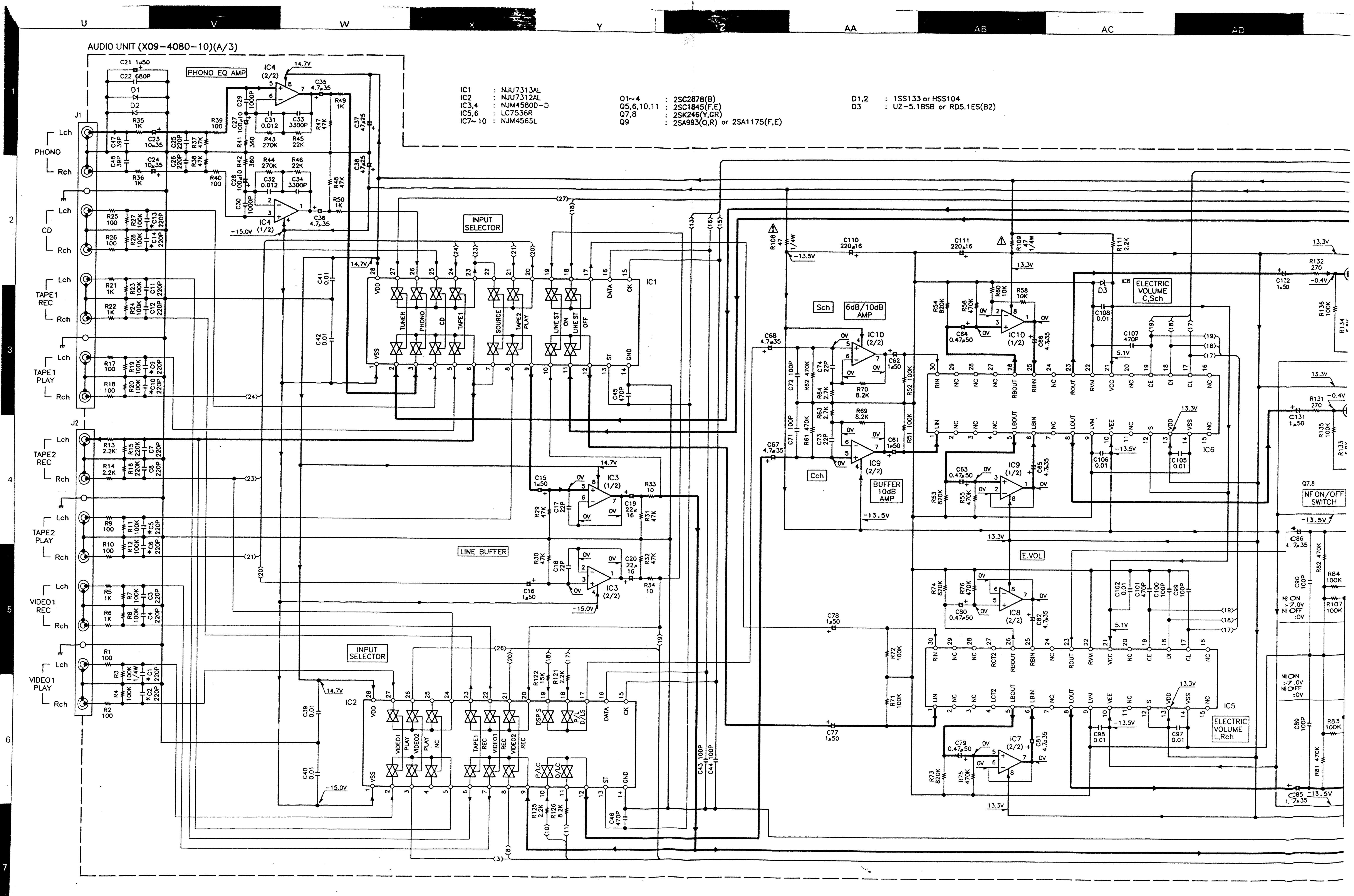
1/5

KR-V7070

KENWOOD

Y05-2960-10

AUDIO UNIT (X09-4080-10)(A/3)

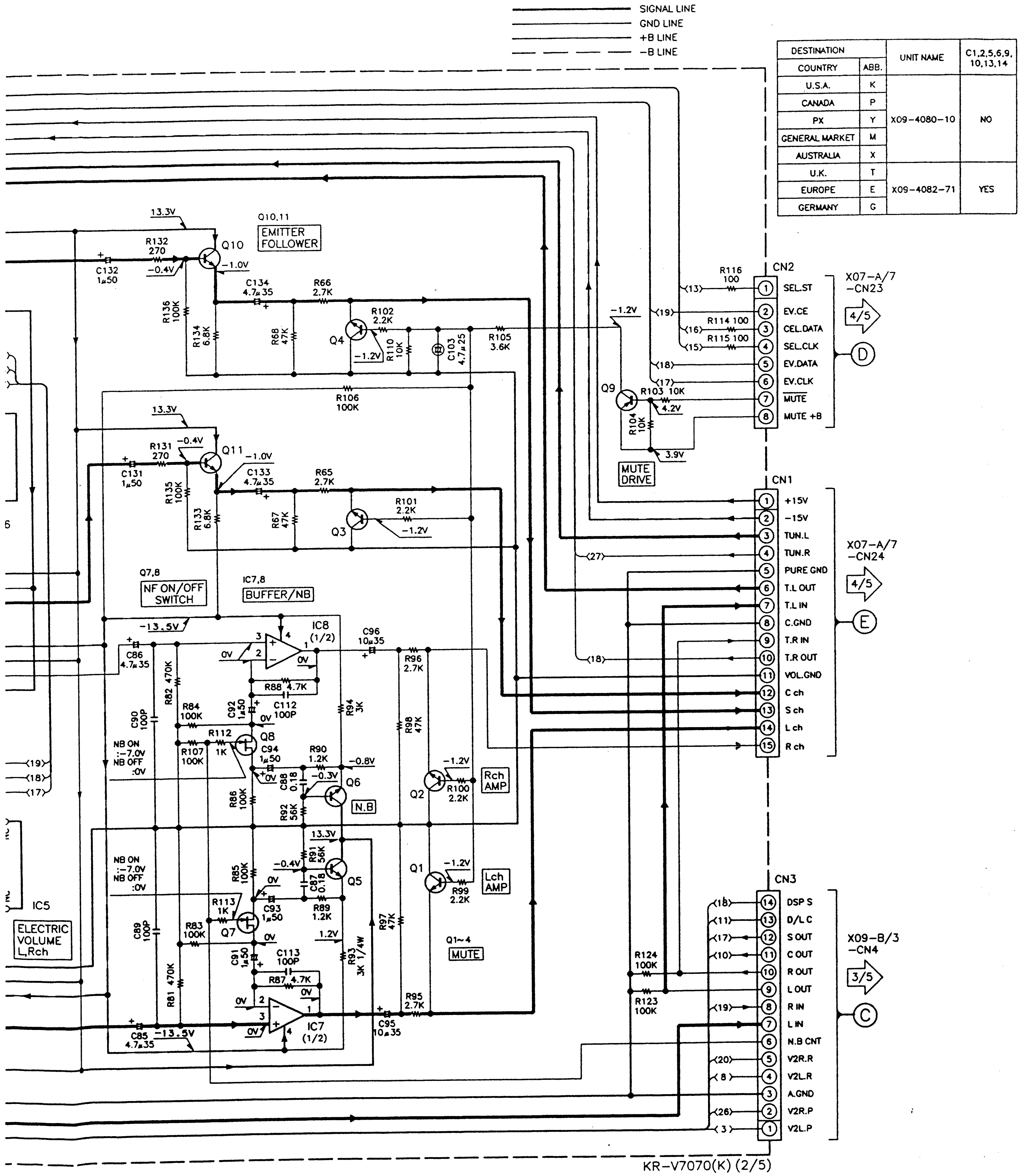


IC1 : NJU7313AL
IC2 : NJU7312AL
IC3,4 : NJM4580D-D
IC5,6 : LC7536R
IC7~10 : NJM4565L

Q1~4 : 2SC2878(B)
Q5,6,10,11 : 2SC1845(F,E)
Q7,8 : 2SK246(Y,GR)
Q9 : 2SA993(Q,R) or 2SA1175(F,E)

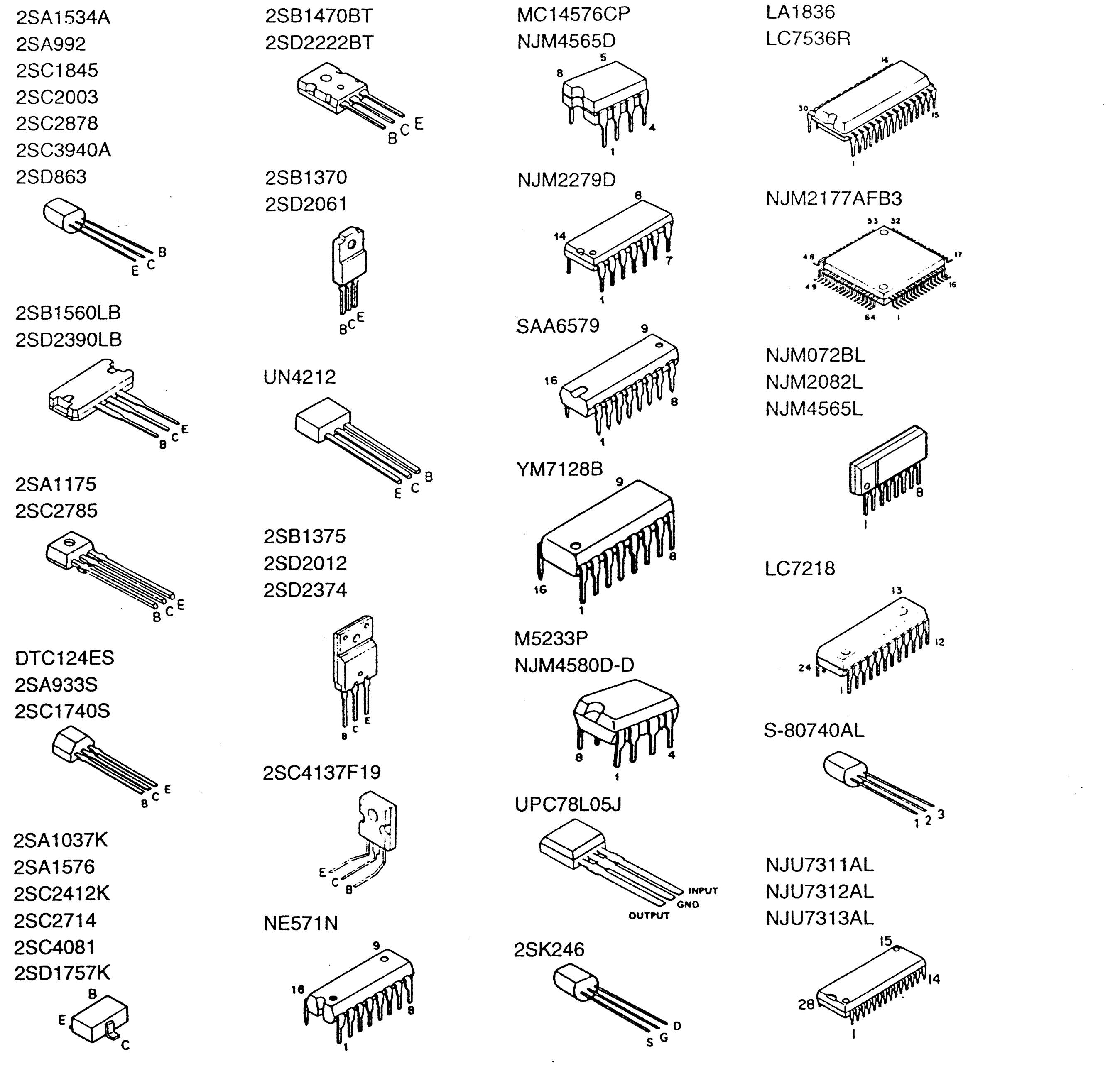
D1,2 : 1SS133 or HSS104
D3 : UZ-5.1BSB or RD5.1ES(B2)

U
V
W
X
Y
Z
AA
AB
AC
AD
1
2
3
4
5
6
7
PHONO EQ AMP
IC4 (2/2)
IC4 (1/2)
14.7V
-15.0V
J1
PHONO
Lch
Rch
CD
TAPE1 REC
TAPE1 PLAY
J2
TAPE2 REC
TAPE2 PLAY
VIDEO1 REC
VIDEO1 PLAY
INPUT SELECTOR
IC1
TUNER
PHONO
CD
TAPE1
SOURCE
TAPE2 PLAY
LINE ST ON
LINE ST OFF
VDD
VSS
DATA
CK
ST
GND
LINE BUFFER
IC3 (1/2)
IC3 (2/2)
IC2
VIDEO1 PLAY
VIDEO2 PLAY
NC
TAPE1 REC
REC
REC
DSP S
P/D/LS
P/LC
D/LC
Sch
Cch
6dB/10dB AMP
IC10 (2/2)
IC10 (1/2)
IC9 (2/2)
IC9 (1/2)
BUFFER 10dB AMP
-13.5V
13.3V
IC6
ELECTRIC VOLUME C,Sch
D3
E.VOL
IC8 (2/2)
IC7 (2/2)
IC5
ELECTRIC VOLUME L,Rch
RIN
RBOUT
RBIN
ROUT
RVM
VCC
CE
DI
CL
LIN
LBOUT
LBIN
LOUT
LVM
VEE
S
VDD
VSS
NC
5.1V
Q7,8
NF ON/OFF SWITCH
ON :7.0V
OFF :0V
R108 47 1/4W
R109 47 1/4W
C110 220μ16
C111 220μ16
R132 270
R131 270
-0.4V


SIGNAL LINE
GND LINE
+B LINE
−B LINE
Q10,11
EMITTER FOLLOWER
13.3V
R132 270
C132 1μ50
−0.4V
−1.0V
Q10
R136 100K
R134 6.8K
C134 4.7μ35
R66 2.7K
R68 47K
Q4
R102 2.2K
−1.2V
R110 10K
C103 4.7μ25
R105 3.6K
R106 100K
R131 270
−0.4V
Q11
C131 1μ50
R135 100K
R133 6.8K
C133 4.7μ35
R65 2.7K
R67 47K
Q3
R101 2.2K
Q7,8
NF ON/OFF SWITCH
IC7,8
BUFFER/NB
−13.5V
IC8 (1/2)
C86 4.7μ35
C96 10μ35
R88 4.7K
R96 2.7K
R82 470K
R84 100K
C92 1μ50
C112 100P
R94 3K
R98 47K
C90 100P
NB ON :−7.0V
NB OFF :0V
R112 1K
R107 100K
Q8
C94 1μ50
R90 1.2K
−0.8V
−0.3V
C88 0.18
Q6
N.B
R86 100K
R92 56K
Q2
R100 2.2K
Rch AMP
13.3V
R91 56K
Q5
C87 0.18
R85 100K
R113 1K
C93 1μ50
R89 1.2K
Q7
R83 100K
C89 100P
C91 1μ50
C113 100P
R87 4.7K
R93 3K 1/4W
R97 47K
Q1
R99 2.2K
Lch AMP
Q1~4
MUTE
R81 470K
IC7 (1/2)
C85 4.7μ35
C95 10μ35
R95 2.7K
IC5
ELECTRIC VOLUME L,Rch
R116 100
R114 100
R115 100
Q9
R103 10K
R104 10K
4.2V
3.9V
MUTE DRIVE
R124 100K
R123 100K
CN2
SEL.ST
EV.CE
CEL.DATA
SEL.CLK
EV.DATA
EV.CLK
MUTE
MUTE +B
X07−A/7 −CN23
4/5
D
CN1
+15V
−15V
TUN.L
TUN.R
PURE GND
T.L OUT
T.L IN
C.GND
T.R IN
T.R OUT
VOL.GND
C ch
S ch
L ch
R ch
X07−A/7 −CN24
4/5
E
CN3
DSP S
D/L C
S OUT
C OUT
R OUT
L OUT
R IN
L IN
N.B CNT
V2R.R
V2L.R
A.GND
V2R.P
V2L.P
X09−B/3 −CN4
3/5
C

DESTINATION		UNIT NAME	C1,2,5,6,9,10,13,14
COUNTRY	ABB.		
U.S.A.	K	X09-4080-10	NO
CANADA	P		
PX	Y		
GENERAL MARKET	M		
AUSTRALIA	X		
U.K.	T	X09-4082-71	YES
EUROPE	E		
GERMANY	G		

KR−V7070(K) (2/5)


2SA1534A
2SA992
2SC1845
2SC2003
2SC2878
2SC3940A
2SD863
2SB1470BT
2SD2222BT
MC14576CP
NJM4565D
LA1836
LC7536R
2SB1370
2SD2061
NJM2279D
NJM2177AFB3
2SB1560LB
2SD2390LB
SAA6579
UN4212
NJM072BL
NJM2082L
NJM4565L
YM7128B
2SA1175
2SC2785
2SB1375
2SD2012
2SD2374
LC7218
DTC124ES
2SA933S
2SC1740S
M5233P
NJM4580D-D
S-80740AL
2SC4137F19
UPC78L05J
INPUT
GND
OUTPUT
2SA1037K
2SA1576
2SC2412K
2SC2714
2SC4081
2SD1757K
NE571N
2SK246
NJU7311AL
NJU7312AL
NJU7313AL
B
C
E
G
S
D

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

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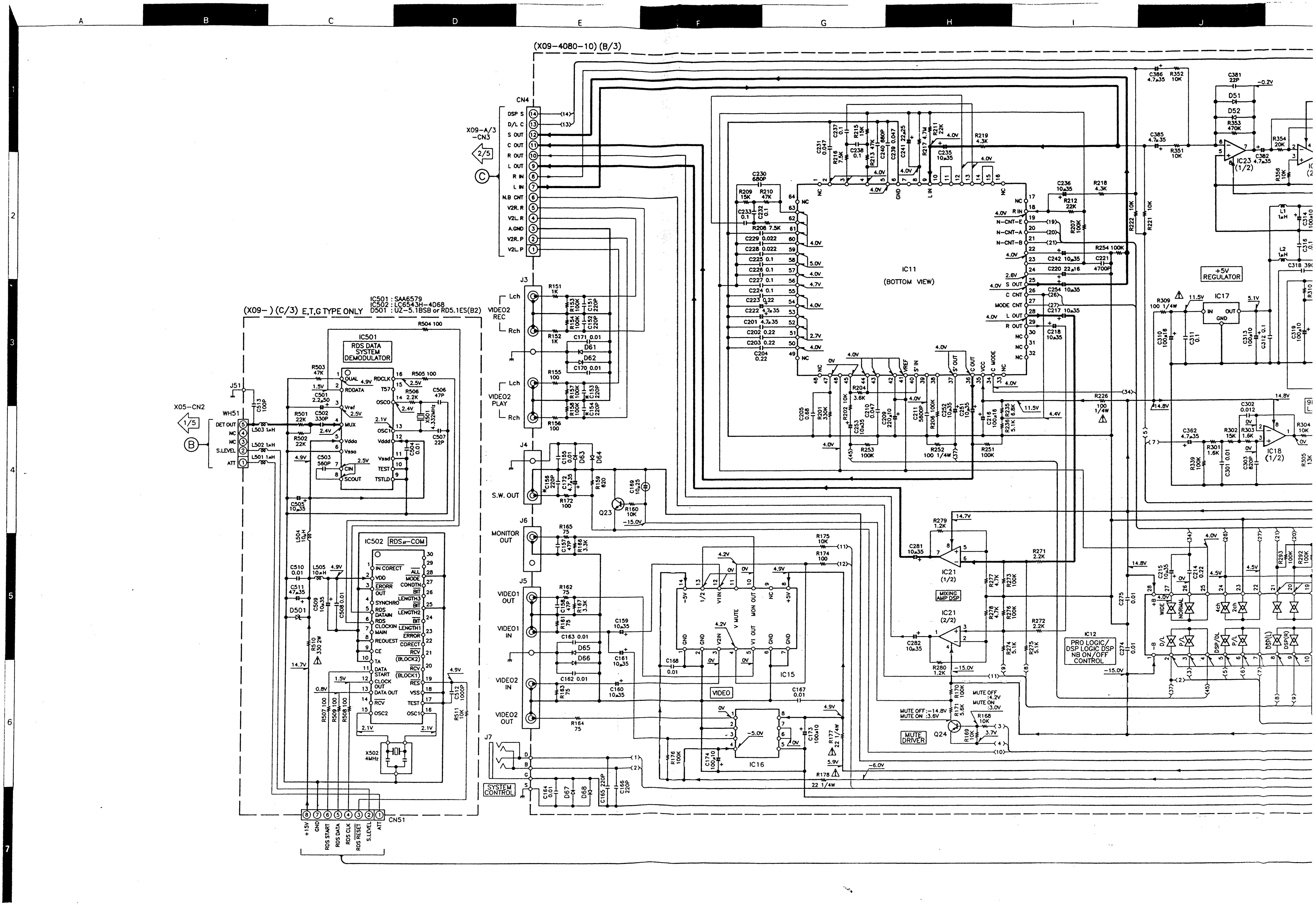
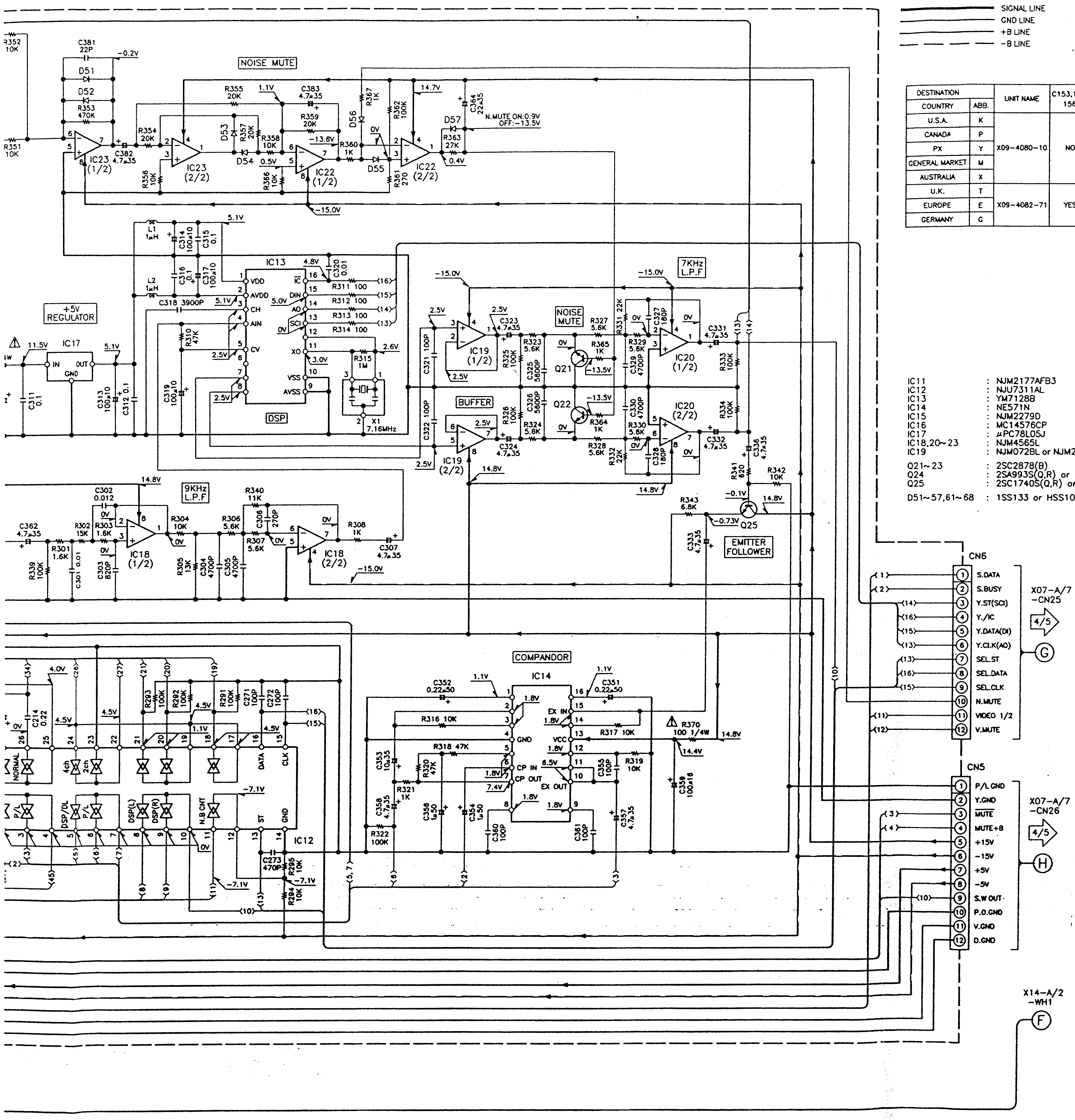
KR-V7070

KENWOOD

Y05-2960-10


A
B
C
D
E
F
G
H
I
J
1
2
3
4
5
6
7
(X09-4080-10) (B/3)
CN4
DSP S
D/L C
S OUT
C OUT
R OUT
L OUT
R IN
L IN
N.B CNT
V2R. R
V2L. R
A.GND
V2R. P
V2L. P
X09-A/3 -CN3
2/5
C
IC11
(BOTTOM VIEW)
IC501 : SAA6579
IC502 : LC6543H-4D68
D501 : UZ-5.1BSB or RD5.1ES(B2)
(X09-) (C/3) E,T,G TYPE ONLY
IC501
RDS DATA SYSTEM DEMODULATOR
IC502
RDS μ-COM
X05-CN2
1/5
B
WH51
DET OUT
NC
NC
S.LEVEL
ATT
J51
CN51
+15V
GND
RDS START
RDS DATA
RDS CLK
RDS RESET
S.LEVEL
ATT
X501 4.332MHz
X502 4MHz
J3
VIDEO2 REC
Lch
Rch
VIDEO2 PLAY
J4
S.W. OUT
Q23
J6
MONITOR OUT
J5
VIDEO1 OUT
VIDEO1 IN
VIDEO2 IN
VIDEO2 OUT
J7
SYSTEM CONTROL
V MUTE
IC15
VIDEO
IC16
IC21 (1/2)
IC21 (2/2)
MIXING AMP DSP
MUTE DRIVER
Q24
MUTE OFF : -14.8V
MUTE ON : 3.6V
IC12
PRO LOGIC/ DSP LOGIC DSP NB ON/OFF CONTROL
WIDE
NORMAL
4ch
2ch
D/L
P/L
DSP/DL
DSP(L)
DSP(R)
+5V REGULATOR
IC17
IN
OUT
GND
IC23 (1/2)
IC18 (1/2)
D51
D52
L1 1μH
L2 1μH


SIGNAL LINE
GND LINE
+B LINE
−B LINE
NOISE MUTE
IC23 (1/2)
IC23 (2/2)
IC22 (1/2)
IC22 (2/2)
N.MUTE ON:0.9V OFF:−13.5V
IC13
DSP
+5V REGULATOR
IC17
7KHz L.P.F
NOISE MUTE
BUFFER
IC19 (1/2)
IC19 (2/2)
IC20 (1/2)
IC20 (2/2)
Q21
Q22
Q25
EMITTER FOLLOWER
9KHz L.P.F
IC18 (1/2)
IC18 (2/2)
COMPANDOR
IC14
IC12
CN6
S.DATA
S.BUSY
Y.ST(SCI)
Y./IC
Y.DATA(DI)
Y.CLK(AO)
SEL.ST
SEL.DATA
SEL.CLK
N.MUTE
VIDEO 1/2
V.MUTE
X07−A/7 −CN25
4/5
G
CN5
P/L GND
Y.GND
MUTE
MUTE+B
+15V
−15V
+5V
−5V
S.W OUT
P.O.GND
V.GND
D.GND
X07−A/7 −CN26
H
X14−A/2 −WH1
F

DESTINATION		UNIT NAME	C153,154, 156
COUNTRY	ABB.		
U.S.A.	K	X09−4080−10	NO
CANADA	P		
PX	Y		
GENERAL MARKET	M		
AUSTRALIA	X		
U.K.	T	X09−4082−71	YES
EUROPE	E		
GERMANY	G		

IC11	:	NJM2177AFB3
IC12	:	NJU7311AL
IC13	:	YM7128B
IC14	:	NE571N
IC15	:	NJM2279D
IC16	:	MC14576CP
IC17	:	μPC78L05J
IC18,20~23	:	NJM4565L
IC19	:	NJM072BL or NJM2082L
Q21~23	:	2SC2878(B)
Q24	:	2SA993S(Q,R) or 2SA1175(F,E)
Q25	:	2SC1740S(Q,R) or 2SC2785(F,E)
D51~57,61~68	:	1SS133 or HSS104

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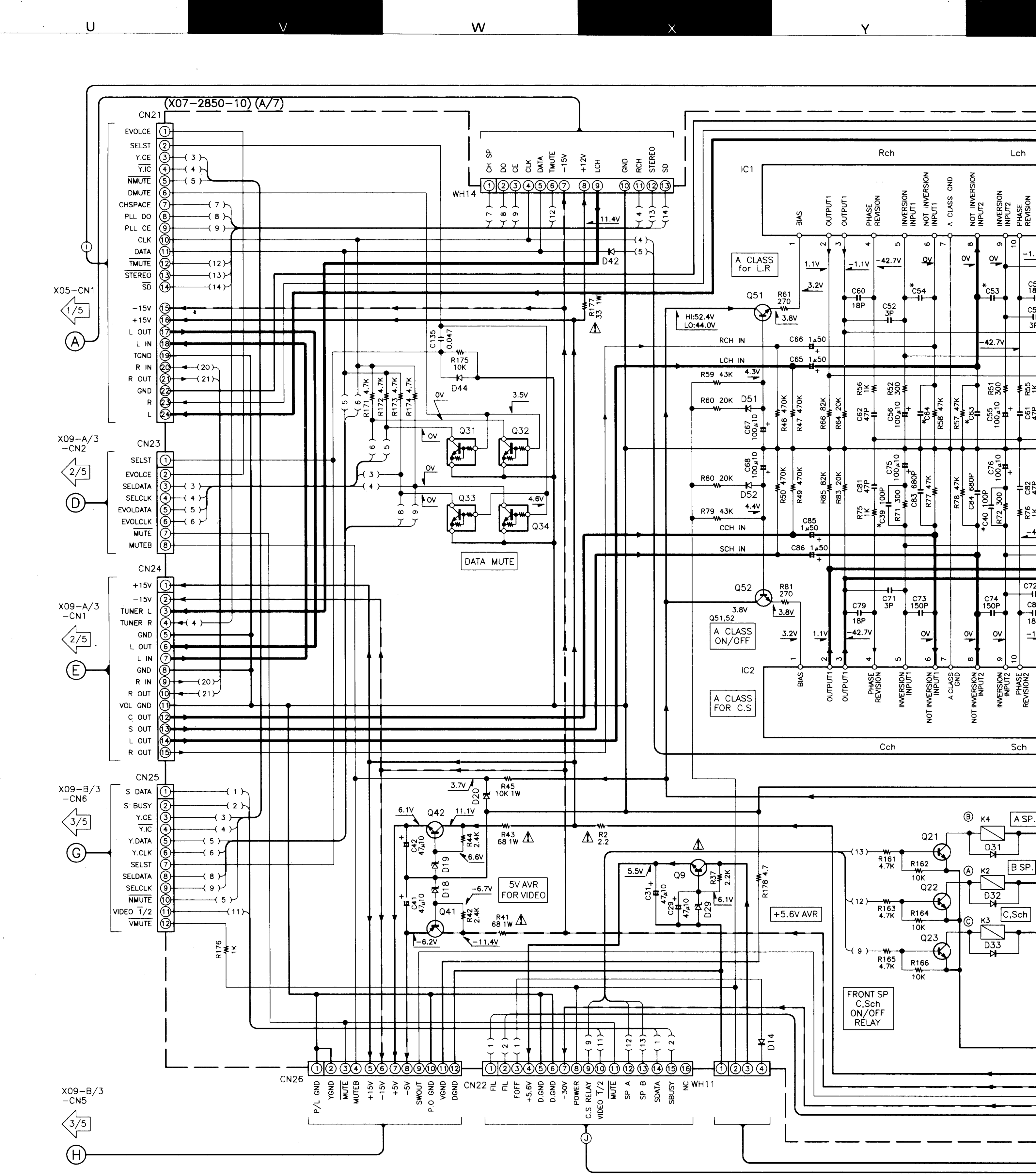
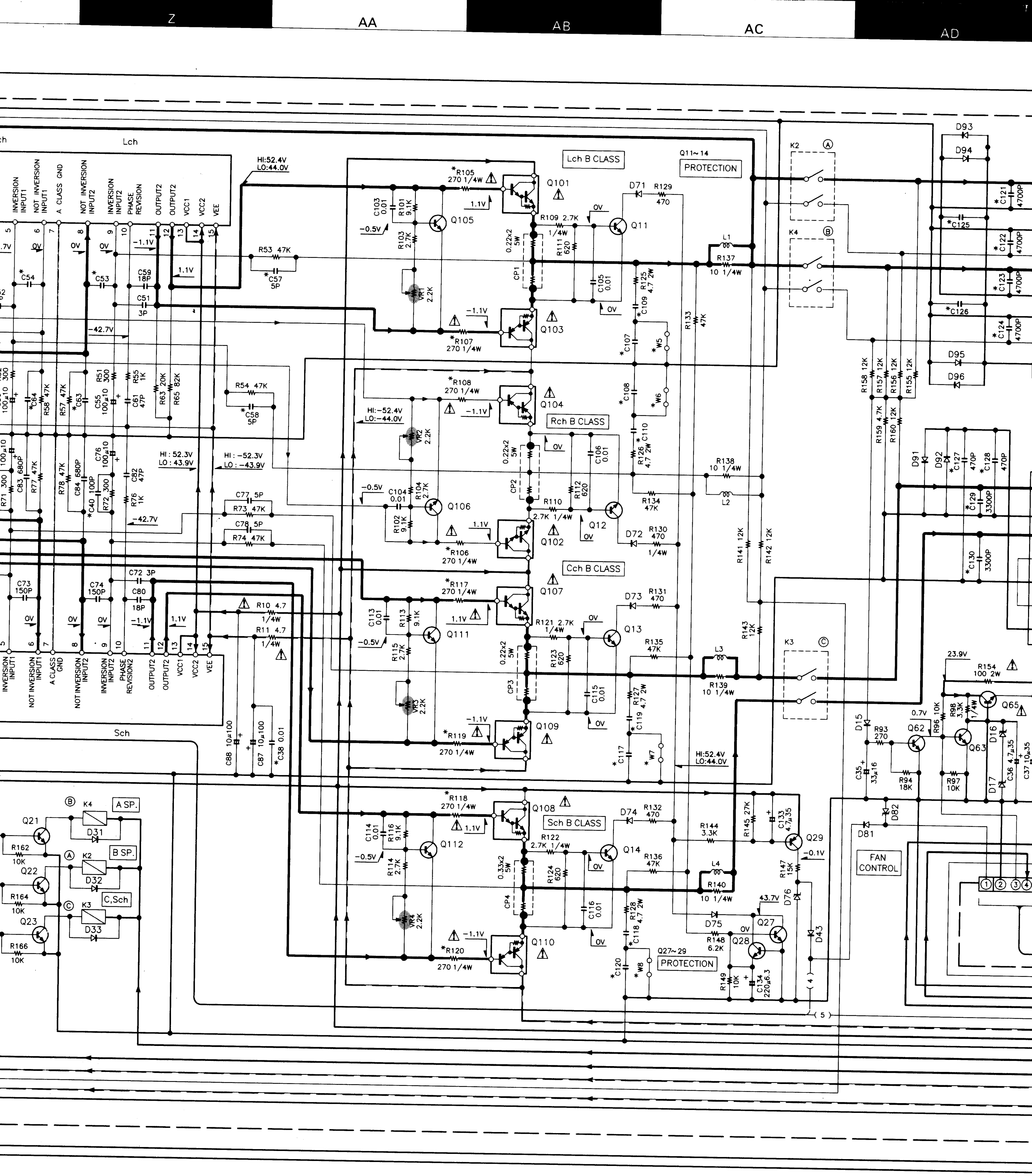
Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KR-V7070

KENWOOD

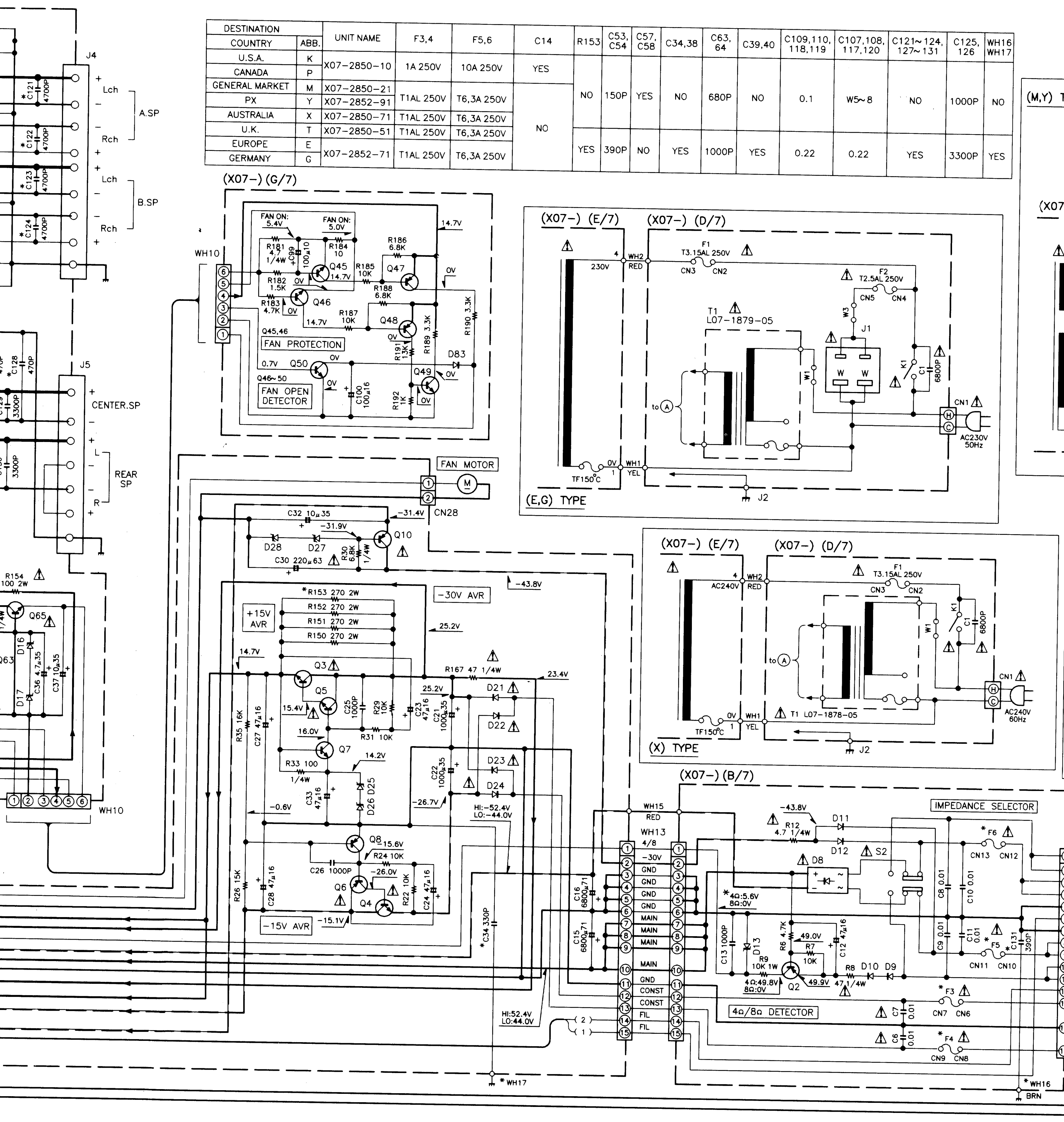

U
V
W
X
Y
(X07-2850-10) (A/7)
CN21
EVOLCE
SELST
Y.CE
Y.IC
NMUTE
DMUTE
CHSPACE
PLL DO
PLL CE
CLK
DATA
TMUTE
STEREO
SD
-15V
+15V
L OUT
L IN
TGND
R IN
R OUT
GND
R
L
X05-CN1
1/5
A
WH14
CH SP
DO
CE
CLK
DATA
TMUTE
-15V
+12V
LCH
GND
RCH
STEREO
SD
11.4V
D42
R177 33 1W
C135 0.047
R175 10K
D44
R171 4.7K
R172 4.7K
R173 4.7K
R174 4.7K
0V
3.5V
Q31
Q32
Q33
Q34
4.6V
DATA MUTE
X09-A/3 -CN2
2/5
D
CN23
SELST
EVOLCE
SELDATA
SELCLK
EVOLDATA
EVOLCLK
MUTE
MUTEB
CN24
X09-A/3 -CN1
2/5
E
+15V
-15V
TUNER L
TUNER R
GND
L OUT
L IN
GND
R IN
R OUT
VOL GND
C OUT
S OUT
L OUT
R OUT
CN25
X09-B/3 -CN6
3/5
G
S DATA
S BUSY
Y.CE
Y.IC
Y.DATA
Y.CLK
SELST
SELDATA
SELCLK
NMUTE
VIDEO T/2
VMUTE
R176 1K
3.7V
D20
R45 10K 1W
6.1V
Q42
11.1V
R43 68 1W
R2 2.2
C42 47µ10
R44 2.4K
6.6V
D19
D18
-6.7V
5V AVR FOR VIDEO
C41 47µ10
Q41
R42 2.4K
R41 68 1W
-6.2V
-11.4V
5.5V
Q9
C31 47µ10
C29 47µ10
R37 2.2K
D29
6.1V
R178 4.7
+5.6V AVR
D14
CN26
P/L GND
YGND
MUTE
MUTEB
+15V
-15V
+5V
-5V
SWOUT
P.O GND
VGND
DGND
CN22
FIL
FIL
FOFF
+5.6V
D.GND
D.GND
-30V
POWER
C.S RELAY
VIDEO T/2
MUTE
SP A
SP B
SDATA
SBUSY
NC
WH11
X09-B/3 -CN5
3/5
H
J
Rch
Lch
IC1
BIAS
OUTPUT1
OUTPUT1
PHASE REVISION
INVERSION INPUT1
NOT INVERSION INPUT1
A CLASS GND
NOT INVERSION INPUT2
INVERSION INPUT2
PHASE REVISION
A CLASS for L.R
1.1V
-1.1V
-42.7V
0V
3.2V
Q51
R61 270
3.8V
HI:52.4V LO:44.0V
C60 18P
C52 3P
C54
C53
RCH IN
C66 1µ50
LCH IN
C65 1µ50
R59 43K
4.3V
R60 20K
D51
C67 100µ10
R48 470K
R47 470K
R66 82K
R64 20K
R56 1K
C62 47P
R52 300
C56 100µ10
C64
R58 47K
R57 47K
C63
R51 300
C55 100µ10
R55 1K
C61 47P
R80 20K
C68 100µ10
D52
R50 470K
R49 470K
R85 82K
R83 20K
C81 47P
C75 100µ10
C39 100P
R71 300
C83 680P
R77 47K
R78 47K
C84 680P
C40 100P
R72 300
C76 100µ10
C82 47P
R75 1K
R76 1K
R79 43K
4.4V
CCH IN
C85 1µ50
SCH IN
C86 1µ50
Q52
R81 270
3.8V
Q51,52
A CLASS ON/OFF
C79 18P
C71 3P
C73 150P
C74 150P
IC2
A CLASS FOR C.S
Cch
Sch
B
K4
A SP.
D31
Q21
R161 4.7K
R162 10K
K2
B SP.
D32
Q22
R163 4.7K
R164 10K
C
K3
C,Sch
D33
Q23
R165 4.7K
R166 10K
FRONT SP C,Sch ON/OFF RELAY



Z
AA
AB
AC
AD
Lch
INVERSION INPUT1
NOT INVERSION INPUT1
A CLASS GND
NOT INVERSION INPUT2
INVERSION INPUT2
PHASE REVISION
OUTPUT2
OUTPUT2
VCC1
VCC2
VEE
HI:52.4V
LO:44.0V
Lch B CLASS
Q11~14
PROTECTION
R105 270 1/4W
Q101
Q105
Q103
R107 270 1/4W
R53 47K
C57 5P
C59 18P
C51 3P
C53
C54
R109 2.7K 1/4W
R111 620
C105 0.01
R125 4.7 2W
C109
Q11
D71
R129 470
L1
R137 10 1/4W
R133 47K
K2
K4
C121 4700P
C122 4700P
C123 4700P
C124 4700P
C125
C126
D93
D94
D95
D96
VR1 2.2K
CP1
0.22x2 5W
C103 0.01
R101 9.1K
R103 2.7K
R108 270 1/4W
Q104
Rch B CLASS
HI:-52.4V
LO:-44.0V
VR2 2.2K
CP2
C104 0.01
R104 2.7K
R102 9.1K
Q106
R110 2.7K 1/4W
R112 620
C106 0.01
Q12
Q102
R106 270 1/4W
D72
R130 470 1/4W
R134 47K
R138 10 1/4W
L2
R126 4.7 2W
C110
C107
C108
W5
W6
R158 12K
R157 12K
R156 12K
R155 12K
R159 4.7K
R160 12K
D91
D92
C127 470P
C128 470P
C129 3300P
C130 3300P
R141 12K
R142 12K
R143 12K
R54 47K
C58 5P
HI: 52.3V
LO: 43.9V
HI: -52.3V
LO: -43.9V
C77 5P
R73 47K
C78 5P
R74 47K
-42.7V
Cch B CLASS
Q107
R117 270 1/4W
C113 0.01
R113 9.1K
Q111
R115 2.7K
VR3 2.2K
CP3
R121 2.7K 1/4W
R123 620
C115 0.01
Q13
D73
R131 470
R135 47K
L3
R139 10 1/4W
K3
R127 4.7 2W
C119
C117
W7
Q109
R119 270 1/4W
R10 4.7 1/4W
R11 4.7 1/4W
C88 10μ100
C87 10μ100
C38 0.01
C72 3P
C73 150P
C74 150P
C80 18P
Sch
A SP.
B SP.
C,Sch
Q21
Q22
Q23
R162 10K
R164 10K
R166 10K
D31
D32
D33
Q108
R118 270 1/4W
Sch B CLASS
C114 0.01
R116 9.1K
Q112
R114 2.7K
VR4 2.2K
CP4
0.33x2 5W
R122 2.7K 1/4W
R124 620
C116 0.01
Q14
D74
R132 470
R136 47K
R144 3.3K
R145 27K
C133 4.7μ35
Q29
L4
R140 10 1/4W
R128 4.7 2W
C118
C120
W8
Q110
R120 270 1/4W
R147 15K
D76
43.7V
Q27
D75
R148 6.2K
Q28
Q27~29
PROTECTION
R149 10K
C134 220μ6.3
D43
HI:52.4V
LO:44.0V
23.9V
R154 100 2W
Q65
Q62
Q63
R93 270
R94 18K
R96 10K
R97 10K
R98 3.3K
D15
D16
D17
C35 33μ16
C36 4.7μ35
C37 10μ35
D81
D82
FAN CONTROL
-0.5V
1.1V
-1.1V
0V
-0.1V
0.7V

DC voltages are as measured with a high impedan
Values may vary slightly due to variations between ind
ments or/and units.

DESTINATION COUNTRY	ABB.	UNIT NAME	F3,4	F5,6	C14	R153	C53, C54	C57, C58	C34,38	C63, 64	C39,40	C109,110, 118,119	C107,108, 117,120	C121~124, 127~131	C125, 126	WH16 WH17
U.S.A.	K	X07−2850−10	1A 250V	10A 250V	YES	NO	150P	YES	NO	680P	NO	0.1	W5~8	NO	1000P	NO
CANADA	P															
GENERAL MARKET	M	X07−2850−21	T1AL 250V	T6,3A 250V	NO											
PX	Y	X07−2852−91														
AUSTRALIA	X	X07−2850−71	T1AL 250V	T6,3A 250V												
U.K.	T	X07−2850−51	T1AL 250V	T6,3A 250V		YES	390P	NO	YES	1000P	YES	0.22	0.22	YES	3300P	YES
EUROPE	E	X07−2852−71	T1AL 250V	T6,3A 250V												
GERMANY	G															


J4
Lch
Rch
A.SP
B.SP
C121 4700P
C122 4700P
C123 4700P
C124 4700P
J5
CENTER.SP
REAR SP
C128 470P
R154 100 2W
Q65
D16
D17
C36 4.7µ35
C37 10µ35
WH10
(X07−) (G/7)
FAN ON: 5.4V
FAN ON: 5.0V
R181 4.7 1/4W
C99 100µ10
R184 10
R186 6.8K
Q45
Q46
Q47
Q48
Q49
Q50
R182 1.5K
R183 4.7K
R185 10K
R187 10K
R188 6.8K
R189 3.3K
R190 3.3K
R191 13K
R192 1K
C100 100µ16
D83
14.7V
Q45,46
FAN PROTECTION
Q46~50
FAN OPEN DETECTOR
FAN MOTOR
CN28
C32 10µ35
C30 220µ63
D27
D28
R30 6.8K 1/4W
Q10
−31.4V
−31.9V
−30V AVR
−43.8V
+15V AVR
R153 270 2W
R152 270 2W
R151 270 2W
R150 270 2W
Q3
Q5
Q7
Q8
Q6
Q4
R167 47 1/4W
23.4V
25.2V
C25 1000P
R29 10K
C23 47µ16
C21 1000µ35
C22 1000µ35
D21
D22
D23
D24
D25
D26
R31 10K
R33 100 1/4W
R35 16K
C27 47µ16
C33 47µ16
R26 15K
C28 47µ16
C26 1000P
R24 10K
R22 10K
C24 47µ16
−15V AVR
−15.1V
−26.7V
HI:−52.4V LO:−44.0V
HI:52.4V LO:44.0V
C34 330P
WH17
(X07−) (E/7)
(X07−) (D/7)
230V
WH2 RED
F1 T3.15AL 250V
CN3
CN2
F2 T2.5AL 250V
CN5
CN4
T1 L07−1879−05
W3
J1
W1
K1
C1 6800P
CN1
AC230V 50Hz
TF150°C
WH1 YEL
J2
(E,G) TYPE
AC240V
T1 L07−1878−05
AC240V 60Hz
(X) TYPE
(X07−) (B/7)
WH15 RED
WH13 4/8
−30V
GND
MAIN
CONST
FIL
C16 6800µ71
C15 6800µ71
R12 4.7 1/4W
D11
D12
S2
D8
IMPEDANCE SELECTOR
4Ω:5.6V 8Ω:0V
C13 1000P
D13
R6 4.7K
R7 10K
R9 10K 1W
C12 47µ16
Q2
4Ω:49.8V 8Ω:0V
49.0V
49.9V
R8 47 1/4W
D10
D9
4Ω/8Ω DETECTOR
C8 0.01
C10 0.01
C9 0.01
C11 0.01
C131 390P
F6
F5
F3
F4
CN13 CN12
CN11 CN10
CN7 CN6
CN9 CN8
C7 0.01
C6 0.01
WH16 BRN
(M,Y) T
(X07

gh impedance voltmeter.
between individual instru-

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

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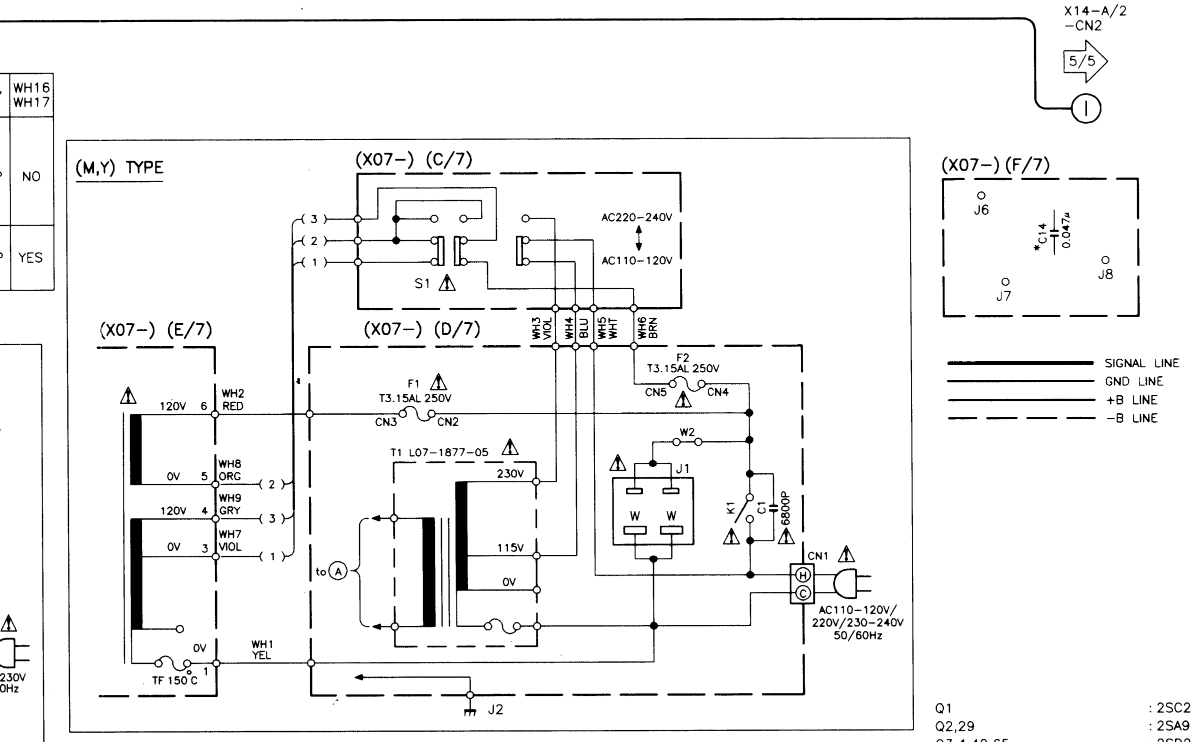
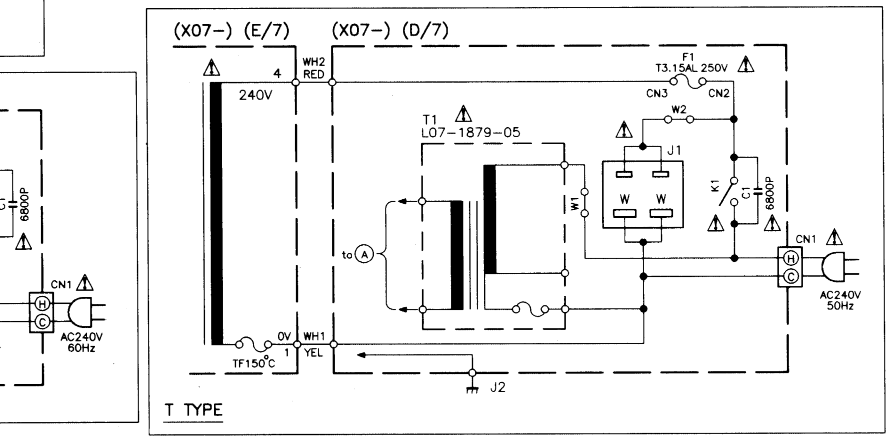
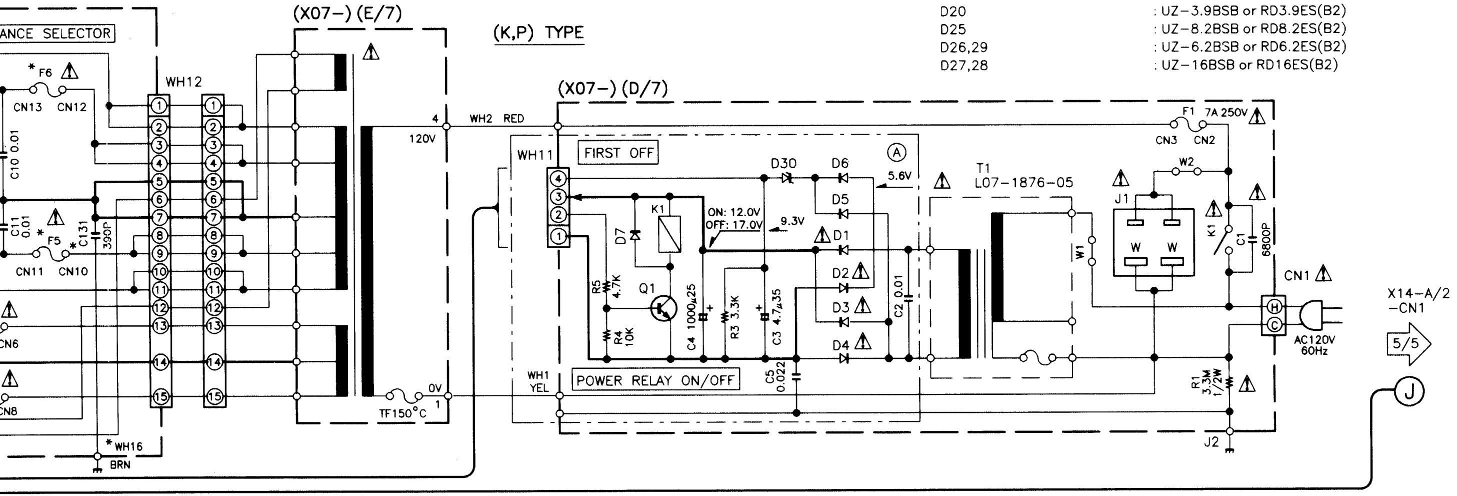

X14-A/2
-CN2
5/5
I
WH16
WH17
NO
YES
(M,Y) TYPE
(X07-) (C/7)
AC220-240V
AC110-120V
S1
(X07-) (E/7)
(X07-) (D/7)
WH3 VIOL
WH4 BLU
WH5 WHT
WH6 BRN
F2
T3.15AL 250V
CN5
CN4
F1
T3.15AL 250V
CN3
CN2
120V 6 WH2 RED
0V 5 WH8 ORG
120V 4 WH9 GRY
0V 3 WH7 VIOL
T1 L07-1877-05
230V
115V
0V
W2
J1
W
K1
C1 6800P
CN1
H
C
AC110-120V/
220V/230-240V
50/60Hz
to A
0V
WH1 YEL
TF 150°C
J2
230V
0Hz
(X07-) (F/7)
J6
*C14 0.047μ
J7
J8
SIGNAL LINE
GND LINE
+B LINE
-B LINE


(X07-) (E/7)
(X07-) (D/7)
4
WH2 RED
240V
F1
T3.15AL 250V
CN3
CN2
T1
L07-1879-05
W2
J1
W1
W
K1
C1 6800P
CN1
H
C
AC240V
50Hz
to A
0V
1
WH1
YEL
TF150°C
J2
T TYPE
C1 6800P
CN1
AC240V
60Hz


(X07-) (E/7)
ANCE SELECTOR
*F6
CN13
CN12
WH12
C10 0.01
C11 0.01
*F5
C131 390P
CN11
CN10
CN6
CN8
*WH16
BRN
4
120V
0V
1
TF150°C
(K,P) TYPE
(X07-) (D/7)
WH2 RED
F1 7A 250V
CN3
CN2
WH11
FIRST OFF
D30
D6
A
5.6V
D5
ON: 12.0V
OFF: 17.0V
9.3V
K1
D7
D1
D2
D3
D4
R5 4.7K
Q1
R4 10K
C4 1000μ25
R3 3.3K
C3 4.7μ35
C2 0.01
C5 0.022
T1
L07-1876-05
W2
J1
W1
W
K1
C1 6800P
CN1
H
C
AC120V
60Hz
R1 3.3M 1/2W
WH1
YEL
POWER RELAY ON/OFF
J2
X14-A/2
-CN1
5/5
J

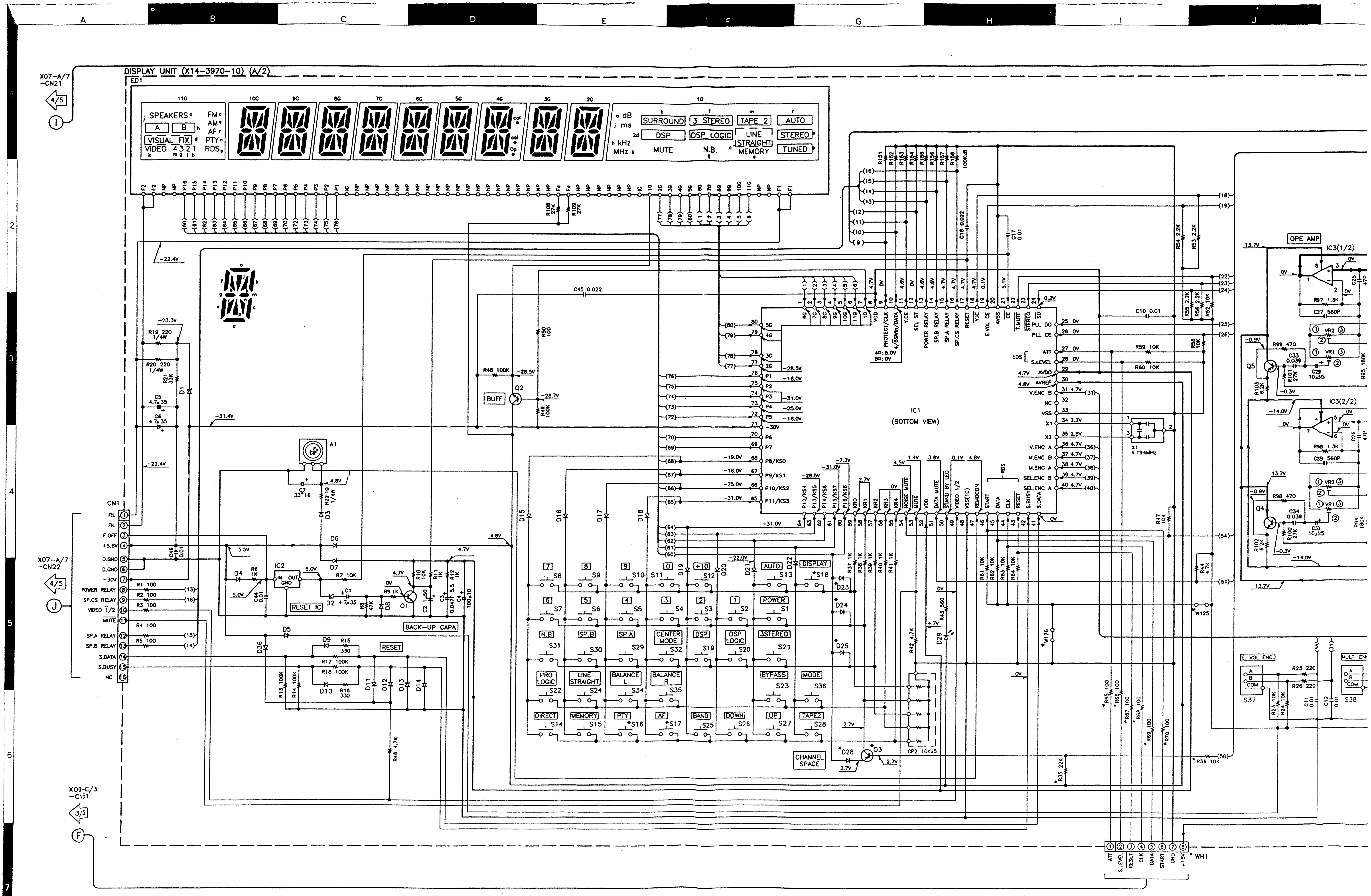
Q1	: 2SC2003(L,K)
Q2,29	: 2SA992(F,E)
Q3,4,42,65	: 2SD2374 or 2SD2012 or 2SD2061
Q5,7,21~23,45,46,49,50,62,63	: 2SC1740S(Q,R) or 2SC2785(F,E)
Q6,8	: 2SA933S(Q,R) or 2SA1175(F.E)
Q9	: 2SC3940A(R,S)
Q10	: 2SA1534A(R,S)
Q11~14,27,28,51,52	: 2SC1845(F,E)
Q31~34	: DTC124ES or UN4212
Q41	: 2SB1370 or 2SB1375
Q47,48	: 2SA933S(Q,R) or 2SA1175(F,E)
Q101,102,107	: 2SD2222BT
Q103,104,109	: 2SB1470BT
Q105,106,111,112	: 2SC4137F19(V,W)
Q108	: 2SD2390LB
Q110	: 2SB1560LB
IC1,2	: μPC2581V
D1~4,11,12,21~24	: S5688B or 1SR139-100
D5,6,9,10,15,71~75	: 1SS131 or HSS104A
D7,14,31~33,42~44, 51,52,81,83, 91~96	: 1SS133 or HSS104
D8	: D5FB20-4002-L20
D13,76,82	: UZ-5.6BSB or RD5.6ES(B2)
D16	: UZ-4.7BS or RD4.7ES(B)
D17,30	: UZ-2.7BSB or RD2.7ES(B2)
D18,19	: UZ-6.8BSB or RD6.8ES(B2)
D20	: UZ-3.9BSB or RD3.9ES(B2)
D25	: UZ-8.2BSB or RD8.2ES(B2)
D26,29	: UZ-6.2BSB or RD6.2ES(B2)
D27,28	: UZ-16BSB or RD16ES(B2)

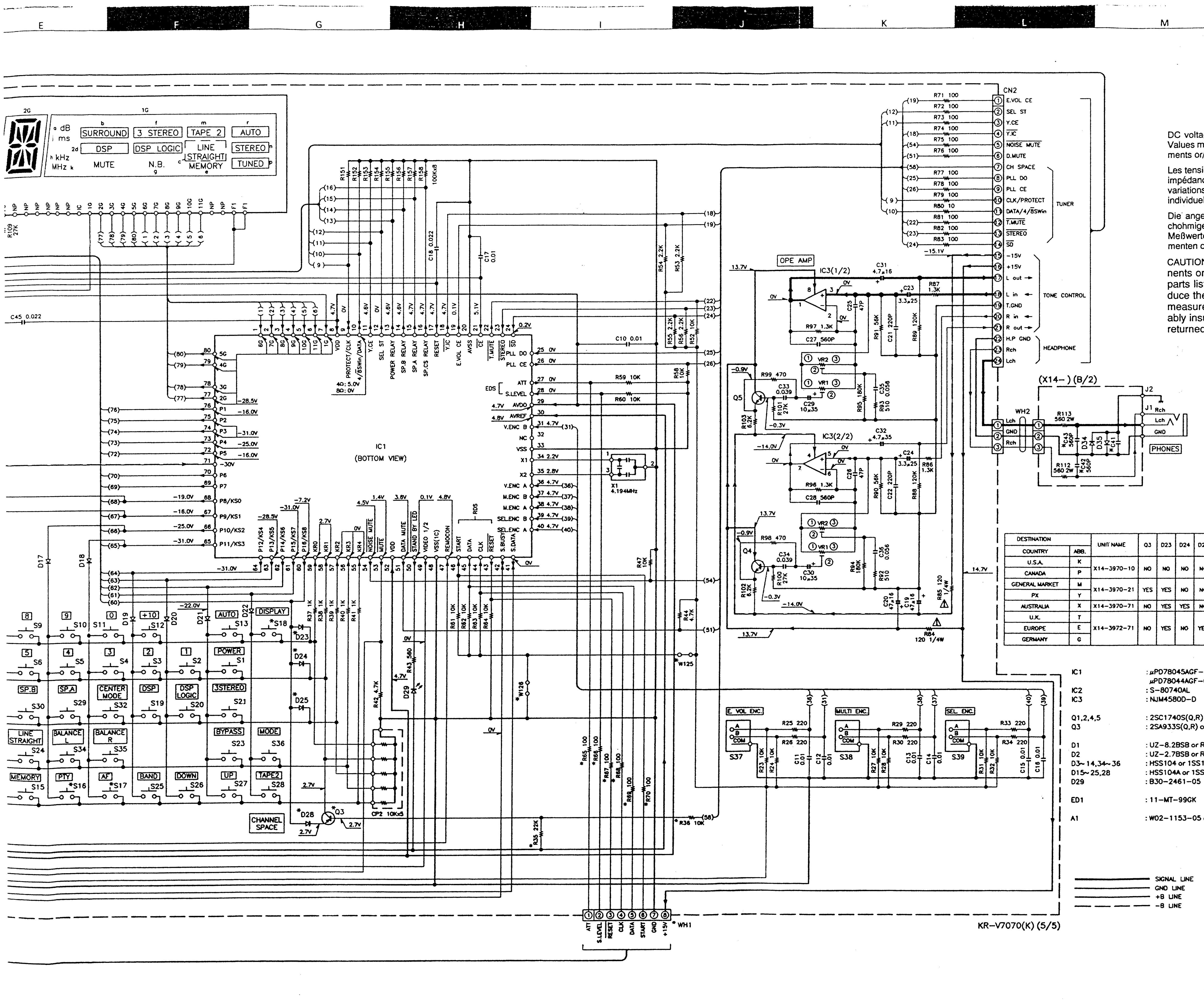
KR-V7070(K) (4/5)

ho-
die
tru-

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

KR-V7070


A B C D E F G H I J
1 2 3 4 5 6 7
DISPLAY UNIT (X14-3970-10) (A/2)
ED1
X07-A/7 -CN21
4/5
I
SPEAKERS
A B
VISUAL_FIX
VIDEO 4 3 2 1
FM AM AF PTY RDS
dB ms kHz MHz
SURROUND 3 STEREO TAPE 2 AUTO
DSP DSP LOGIC LINE STRAIGHT STEREO
MUTE N.B. MEMORY TUNED
11G 10G 9G 8G 7G 6G 5G 4G 3G 2G 1G
R108 27K
R109 27K
C45 0.022
R50 100
R48 100K
Q2
BUFF
R49 100K
R19 220 1/4W
R20 220 1/4W
R21 33K
C5 4.7 35
C6 4.7 35
D1
A1
C7 33 16
R22 10 1/4W
D3
D6
D7
R7 10K
IC2
IN OUT GND
RESET IC
D4
R6 1K
C44 0.01
C46 0.01
D2
C1 4.7 35
R8 47K
D8
Q1
R9 1K
C2 1 50
R10 10K
R11 1K
C3 0.047 5.5
R12 1K
C4 100 10
BACK-UP CAPA
D5
D9 R15 330
R17 100K
R18 100K
D10 R16 330
RESET
D36
R13 100K
R14 100K
D11 D12 D13 D14
R46 4.7K
CN1
FIL FIL F.OFF +5.6V D.GND D.GND -30V POWER RELAY SP.CS RELAY VIDEO 1/2 MUTE SP.A RELAY SP.B RELAY S.DATA S.BUSY NC
R1 100 R2 100 R3 100 R4 100 R5 100
X07-A/7 -CN22
4/5
J
X09-C/3 -CN51
3/5
F
D15 D16 D17 D18 D19 D20 D21 D22
IC1 (BOTTOM VIEW)
VDD PROTECT/CLK 4.7/BSWm/DATA Y.CE SEL ST POWER RELAY SP.B RELAY SP.A RELAY SP.CS RELAY RESET Y.IC E.VOL CE AVSS CE T.MUTE STEREO SD
PLL DO PLL CE ATT S.LEVEL AVDD AVREF V.ENC B NC VSS X1 X2 V.ENC A M.ENC B M.ENC A SEL.ENC B SEL.ENC A
EDS RDS
P1 P2 P3 P4 P5 P6 P7 P8/KS0 P9/KS1 P10/KS2 P11/KS3 P12/KS4 P13/KS5 P14/KS6 P15/KS7 P16/KS8
KR0 KR1 KR2 KR3 KR4 NOISE MUTE MUTE VDD DATA MUTE STAND BY LED VIDEO 1/2 VSS(1C) REMOCON START DATA CLK RESET S.BUSY S.DATA
R151 R152 R153 R154 R155 R156 R157 R158 100Kx8
C18 0.022
C17 0.01
C10 0.01
R59 10K
R60 10K
R58 10K
X1 4.194MHz
R54 2.2K R53 2.2K R55 2.2K R56 2.2K R52 10K
7 S8 8 S9 9 S10 0 S11 +10 S12 AUTO S13 DISPLAY S18
6 S7 5 S6 4 S5 3 S4 2 S3 1 S2 POWER S1
N.B S31 SP.B S30 SP.A S29 CENTER MODE S32 DSP S19 DSP LOGIC S20 3STEREO S21
PRO LOGIC S22 LINE STRAIGHT S24 BALANCE L S34 BALANCE R S35 BYPASS S23 MODE S36
DIRECT S14 MEMORY S15 PTY S16 AF S17 BAND S25 DOWN S26 UP S27 TAPE2 S28
R37 1K R38 1K R39 1K R40 1K R41 1K
D23 D24 D25
R42 4.7K
R43 560
D29
CP2 10Kx5
CHANNEL SPACE
D28
Q3
R81 10K R82 10K R83 10K R84 10K
W126 W125
R47 10K
R44 4.7K
R35 22K
R36 10K
R65 100 R66 100 R67 100 R68 100 R69 100 R70 100
ATT S.LEVEL RESET CLK DATA START GND +15V
WH1
OPE AMP
IC3(1/2)
IC3(2/2)
C25 47P
R97 1.3K
C27 560P
VR2 VR1
Q5
R99 470
C33 0.039
R101 27K
C29 10 35
R103 6.2K
R95 180K
C26 47P
R96 1.3K
C28 560P
Q4
R98 470
C34 0.039
R100 27K
C30 10 35
R102 6.2K
R94 180K
13.7V
E. VOL ENC.
R25 220
R26 220
R23 10K
R24 10K
C11 0.01
C12 0.01
S37
MULTI ENC
S38


E
F
G
H
I
J
K
L
M
N
O
SURROUND
3 STEREO
TAPE 2
AUTO
DSP
DSP LOGIC
LINE STRAIGHT
STEREO
MUTE
N.B.
MEMORY
TUNED
dB
ms
kHz
MHz
IC1
(BOTTOM VIEW)
PROTECT/CLK
4/BSWin/DATA
Y.CE
SEL ST
POWER RELAY
SP.B RELAY
SP.A RELAY
SP.CS RELAY
RESET
Y.IC
E.VOL CE
AVSS
CE
T.MUTE
STEREO
SD
PLL DO
PLL CE
ATT
S.LEVEL
AVDD
AVREF
V.ENC B
NC
VSS
X1
X2
V.ENC A
M.ENC B
M.ENC A
SEL.ENC B
SEL.ENC A
P8/KS0
P9/KS1
P10/KS2
P11/KS3
P12/KS4
P13/KS5
P14/KS6
P15/KS7
P16/KS8
KR0
KR1
KR2
KR3
KR4
NOISE MUTE
MUTE
VDD
DATA MUTE
STAND BY LED
VIDEO 1/2
VSS(1C)
REMOCON
START
DATA
CLK
RESET
S.BUSY
S.DATA
RDS
EDS
X1
4.194MHz
OPE AMP
IC3(1/2)
IC3(2/2)
Q4
Q5
VR1
VR2
CN2
E.VOL CE
SEL ST
Y.CE
Y.IC
NOISE MUTE
D.MUTE
CH SPACE
PLL DO
PLL CE
CLK/PROTECT
DATA/4/BSWin
T.MUTE
STEREO
SD
-15V
+15V
L out
L in
T.GND
R in
R out
H.P GND
Rch
Lch
TUNER
TONE CONTROL
HEADPHONE
(X14-) (B/2)
WH2
J1
J2
Rch
Lch
GND
PHONES
R113 560 2W
R112 560 2W
R84 120 1/4W
S9
S10
S11
S12
S13
S18
S6
S5
S4
S3
S2
S1
POWER
DISPLAY
AUTO
SP.B
SP.A
CENTER MODE
DSP
DSP LOGIC
3STEREO
S30
S29
S32
S19
S20
S21
LINE STRAIGHT
BALANCE L
BALANCE R
BYPASS
MODE
S24
S34
S35
S23
S36
MEMORY
PTY
AF
BAND
DOWN
UP
TAPE2
S15
S16
S17
S25
S26
S27
S28
CHANNEL SPACE
Q3
D28
D29
CP2 10Kx5
E. VOL ENC.
MULTI ENC.
SEL. ENC.
S37
S38
S39
ATT
S.LEVEL
RESET
CLK
DATA
START
GND
+15V
WH1
W125
W126

KR-V7070(K) (5/5)

DC voltages are as measured with a high impedance voltmeter. Values may vary slightly due to variations between individual instruments or/and units.

Les tensions c.c. doivent être mesurées avec un voltmètre à haute impédance. Les valeurs peuvent différer légèrement du fait des variations inhérentes aux appareils et aux instruments de mesure individuels.

Die angegebenen Gleichspannungswerte wurden mit einem hochohmigen Spannungsmesser gemessen. Dabei schwanken die Meßwerte aufgrund von Unterschieden zwischen einzelnen Instrumenten oder Geräten u. U. geringfügig.

CAUTION: For continued safety, replace safety critical components only with manufacturer's recommended parts (refer to parts list). ⚠ indicates safety critical components. To reduce the risk of electric shock, leakage-current or resistance measurements shall be carried out (exposed parts are acceptably insulated from the supply circuit) before the appliance is returned to the customer.

DESTINATION		UNIT NAME	Q3	D23	D24	D25	D28	R35, 36	R65, ~70	C41	C42, 43	S16, ~18	WH1,103, 111,125	W12,17, 95	W126
COUNTRY	ABB.														
U.S.A.	K	X14-3970-10	NO	NO	NO	NO	NO	NO	NO	0.01	NO	NO	NO	NO	YES
CANADA	P														
GENERAL MARKET	M	X14-3970-21	YES	YES	NO	NO	YES	YES	NO	0.01	NO	NO	NO	YES	YES
PX	Y														
AUSTRALIA	X	X14-3970-71	NO	YES	YES	NO	NO	NO	NO	0.01	NO	NO	NO	NO	YES
U.K.	T	X14-3972-71	NO	YES	NO	YES	NO	NO	YES	0.022	YES	YES	YES	NO	NO
EUROPE	E														
GERMANY	G														

IC1	: μPD78045AGF-013 (E,T,G TYPE) μPD78044AGF-071 (K,P,Y,M,X TYPE)
IC2	: S-80740AL
IC3	: NJM4580D-D
Q1,2,4,5	: 2SC1740S(Q,R) or 2SC2785(F,E)
Q3	: 2SA933S(Q,R) or 2SA1175(F,E)
D1	: UZ-8.2BSB or RD8.2ES(B2)
D2	: UZ-2.7BSB or RD2.7ES(B2)
D3~14,34~36	: HSS104 or 1SS133
D15~25,28	: HSS104A or 1SS131
D29	: B30-2461-05
ED1	: 11-MT-99GK
A1	: W02-1153-05 or W02-1174-05

SIGNAL LINE
GND LINE
+B LINE
-B LINE

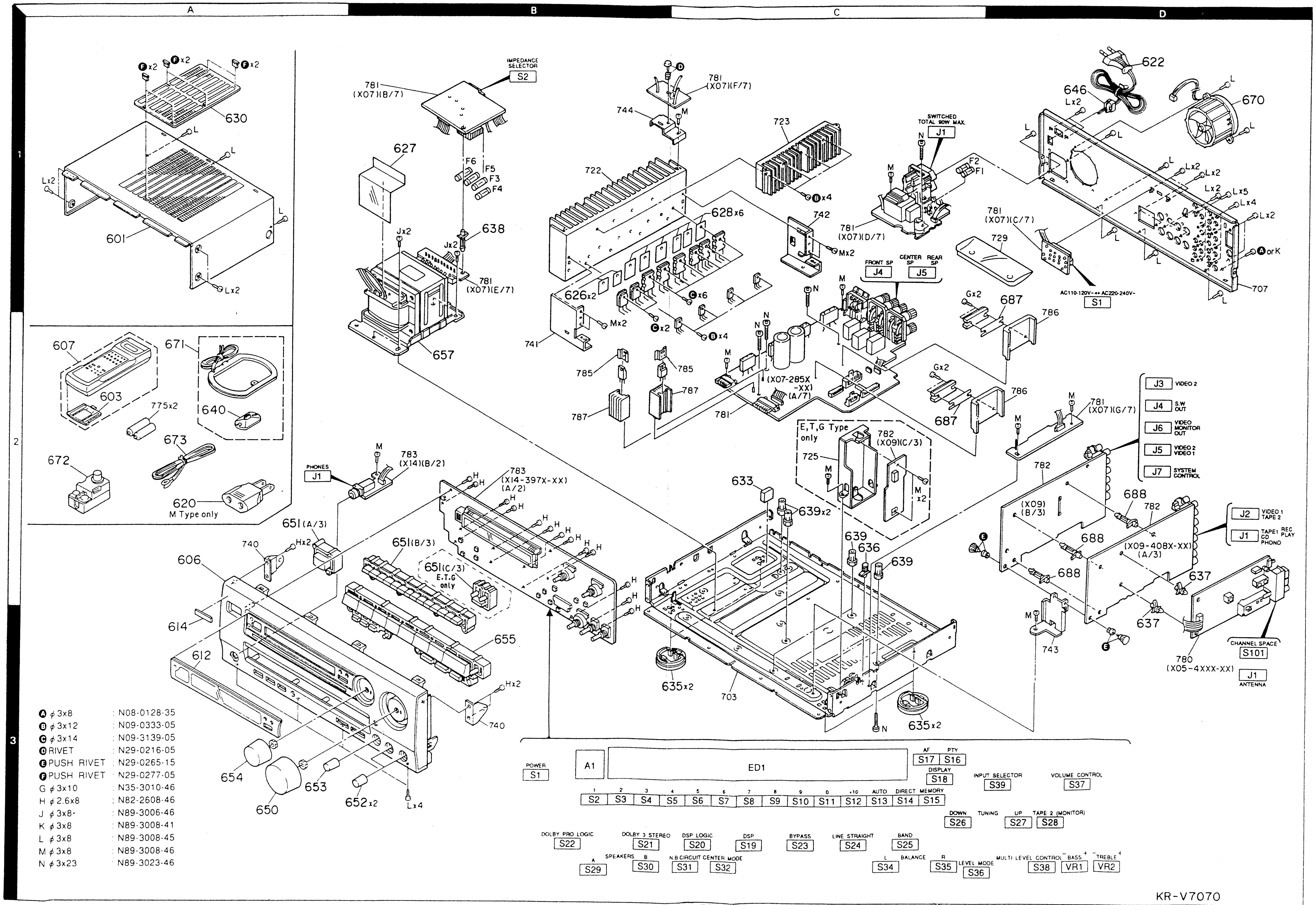
5/5

KR-V7070

KENWOOD

Y05-2960-10

EXPLODED VIEW


A
B
C
D
1
2
3
Ⓕx2
Ⓕx2
Ⓕx2
630
L
L
Lx2
L
601
Lx2
607
603
671
640
775x2
673
672
620
M Type only
IMPEDANCE SELECTOR
S2
781
(X07)(B/7)
627
F6
F5
F3
F4
638
Jx2
Jx2
781
(X07)(E/7)
657
Ⓓ
781
(X07)(F/7)
744
M
722
723
628x6
626x2
Ⓒx6
Mx2
Ⓒx2
Ⓑx4
Ⓑx4
741
742
Mx2
781
(X07)(D/7)
SWITCHED TOTAL 90W MAX.
J1
N
M
F2
F1
FRONT SP
CENTER SP
REAR SP
J4
J5
N
M
N
N
M
785
785
787
787
(X07-285X-XX)
(A/7)
781
622
646
Lx2
670
L
L
L
L
Lx2
Lx2
Lx2
Lx5
Lx4
Lx2
Ⓐ or K
707
781
(X07)(C/7)
729
AC110-120V ↔ AC220-240V
S1
Gx2
687
786
Gx2
786
687
M
781
(X07)(G/7)
M
J3 VIDEO 2
J4 S.W OUT
J6 VIDEO MONITOR OUT
J5 VIDEO 2 VIDEO 1
J7 SYSTEM CONTROL
E,T,G Type only
782
(X09)(C/3)
725
M
M x2
633
639x2
639
636
639
M
783
(X14)(B/2)
PHONES
J1
H
H
783
(X14-397X-XX)
(A/2)
H
H
H
651(A/3)
Hx2
740
606
651(B/3)
651(C/3)
E.T.G only
655
614
612
Hx2
740
654
650
653
652x2
Lx4
635x2
703
635x2
N
782
(X09)
(B/3)
688
782
688
(X09-408X-XX)
(A/3)
688
Ⓔ
637
637
M
743
Ⓔ
780
(X05-4XXX-XX)
J2 VIDEO 1 TAPE 2
J1 TAPE1 REC PLAY CD PHONO
CHANNEL SPACE
S101
J1
ANTENNA
POWER
S1
A1
ED1
AF
PTY
S17
S16
DISPLAY
S18
INPUT SELECTOR
S39
VOLUME CONTROL
S37
1
2
3
4
5
6
7
8
9
0
+10
AUTO
DIRECT
MEMORY
S2
S3
S4
S5
S6
S7
S8
S9
S10
S11
S12
S13
S14
S15
DOWN
TUNING
UP
TAPE 2 (MONITOR)
S26
S27
S28
DOLBY PRO LOGIC
S22
DOLBY 3 STEREO
S21
DSP LOGIC
S20
DSP
S19
BYPASS
S23
LINE STRAIGHT
S24
BAND
S25
A
SPEAKERS
B
S29
S30
N.B.CIRCUIT
CENTER MODE
S31
S32
L
BALANCE
R
S34
S35
LEVEL MODE
S36
MULTI LEVEL CONTROL
S38
− BASS +
VR1
− TREBLE +
VR2

Ⓐ ϕ3x8 : N08-0128-35
Ⓑ ϕ3x12 : N09-0333-05
Ⓒ ϕ3x14 : N09-3139-05
Ⓓ RIVET : N29-0216-05
Ⓔ PUSH RIVET : N29-0265-15
Ⓕ PUSH RIVET : N29-0277-05
G ϕ3x10 : N35-3010-46
H ϕ2.6x8 : N82-2608-46
J ϕ3x8 : N89-3006-46
K ϕ3x8 : N89-3008-41
L ϕ3x8 : N89-3008-45
M ϕ3x8 : N89-3008-46
N ϕ3x23 : N89-3023-46

Parts with the exploded numbers larger than 700 are not supplied.

⋆ New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No.1

KR-V7070

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
601	1A	*	A01-3192-01	METALLIC CABINET		
603	2A	*	A09-0194-08	BATTERY COVER		
606	2A	*	A60-0661-11	PANEL	KPYMX	
606	2A	*	A60-0722-11	PANEL	TEG	
607	2A	*	A70-1008-05	REMOTE CONTROLLER ASSY(-R0704)	KPYMX	
607	2A	*	A70-1009-05	REMOTE CONTROLLER ASSY(-R0705)	TEG	
612	3A	*	B03-2924-13	DRESSING PLATE	KPYMX	
612	3A	*	B03-2925-13	DRESSING PLATE	TEG	
614	3A		B43-0287-04	KENWOOD BADGE		
-		*	B46-0092-43	WARRANTY CARD	KY	
-		*	B46-0096-53	WARRANTY CARD	X	
-			B46-0121-33	WARRANTY CARD	P	
-			B46-0197-00	QUESTIONAIRE CARD	K	
-			B46-0310-03	WARRANTY CARD	TEG	
-			B58-0513-04	CAUTION CARD (PRESET220-240)	Y	
-		*	B58-0964-13	CAUTION CARD (UL)	KY	
-		*	B58-0965-13	CAUTION CARD (P,T,X)	XT	
-		*	B58-0966-13	CAUTION CARD (ELM)	ME	
-		*	B58-0967-03	CAUTION CARD	P	
-		*	B58-0970-13	CAUTION CARD	G	
-		*	B59-1104-00	SERVICE DIRECTORY	Y	
-		*	B60-1870-00	INSTRUCTION MANUAL (ENGLISH)	KPYMX	
-		*	B60-1871-00	INSTRUCTION MANUAL (FRENCH)	P	
-		*	B60-1872-00	INSTRUCTION MANUAL (SPA,CHI)	M	
-		*	B60-1873-00	INSTRUCTION MANUAL (ENGLISH)	TE	
-		*	B60-1874-00	INSTRUCTION MANUAL (FRE,DUT)	E	
-		*	B60-1875-00	INSTRUCTION MANUAL (GERMANY)	EG	
-		*	B60-1877-00	INSTRUCTION MANUAL (ITA,SPA)	E	
-		*	B60-2083-00	INSTRUCTION MANUAL (TAIWANESE)	M	
⚠ 620	2A		E03-0115-05	AC PLUG ADAPTOR	M	
⚠ 622	1D		E30-2592-15	AC POWER CORD	MEG	
⚠ 622	1D		E30-2605-05	AC POWER CORD	Y	
⚠ 622	1D		E30-2650-05	AC POWER CORD	KP	
⚠ 622	1D		E30-2717-05	AC POWER CORD	X	
⚠ 622	1D		E30-2721-05	AC POWER CORD	T	
626	1B		F20-1297-05	INSULATING SHEET		
627	1B	*	F20-1301-04	INSULATING BOARD	T	
628	1C		F20-1322-05	INSULATING BOARD		
630	1A		F20-1433-03	INSULATING BOARD	M	
633	2C	*	G11-2191-04	CUSHION		
		*	H50-1317-14	ITEM CARTON CASE	KPYXEG	
		*	H50-1318-14	ITEM CARTON CASE	M	
		*	H50-1320-14	ITEM CARTON CASE	T	
-		*	H10-5915-02	POLYSTYRENE FOAMED FIXTURE(L)	KPYMXE	
-		*	H10-5915-02	POLYSTYRENE FOAMED FIXTURE(L)	G	
-		*	H10-5916-12	POLYSTYRENE FOAMED FIXTURE(R)	KPYMXE	
-		*	H10-5916-12	POLYSTYRENE FOAMED FIXTURE(R)	G	
-			H10-5917-02	POLYSTYRENE FOAMED FIXTURE(L)	T	
-			H10-5918-02	POLYSTYRENE FOAMED FIXTURE(R)	T	
-			H13-0147-14	CARTON BOARD	X	

L: *Scandinavia*	**K**: USA	**P**: Canada	**R**: Mexico
Y: PX (Far East, Hawaii)	**T**: England	**E**: Europe	**G**: Germany
Y: AAFES (Europe)	**X**: Australia	**M**: Other Areas	

⚠ indicates safety critical components.

TUNER UNIT

UNIT NO.	Destination
X05-4460-13	KS, PS
X05-4460-23	YS, MS
X05-4460-73	XS

TUNER UNIT

UNIT NO.	Destination
X05-4532-70	TS, ES, GS

MAIN AMP UNIT

UNIT NO.	Destination
X07-2850-10	KS, PS
X07-2850-21	MS
X07-2850-51	TS
X07-2850-71	XS
X07-2852-71	ES, GS
X07-2852-91	YS

AUDIO UNIT

UNIT NO.	Destination
X09-4080-10	KS, PS, YS, MS, XS
X09-4082-71	TS, ES, GS

DISPLAY UNIT

UNIT NO.	Destination
X14-3970-10	KS, PS
X14-3970-21	YS, MS
X14-3970-71	XS
X14-3972-71	TS, ES, GS

⁎ New Parts
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Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	KPYMXE	
-			H25-0232-04	PROTECTION BAG (235X350X0.03)	G	
-			H25-0651-04	PROTECTION BAG (0232 PRINTED)	T	
-			H25-1516-04	PROTECTION BAG		
635	3C	*	J02-1122-05	FOOT (46mm)		
636	2C		J19-2536-05	UNIT HOLDER		
637	2D, 3D		J19-3324-15	UNIT HOLDER		
638	1B		J19-3329-05	UNIT HOLDER		
639	2C	*	J19-3752-14	UNIT HOLDER		
640	2A		J19-3645-05	LOOP ANTENNA STAND		
⚠ 646	1D		J42-0083-05	POWER CORD BUSHING		
-			J61-0307-05	WIRE BAND		
650	3A		K29-5851-04	KNOB (VOLUME CONTROL)		
651	2A, 2B		K29-6039-02	KNOB (POWER/10KEY/RDS)		
652	3B		K29-6041-04	KNOB (BASS, TREBLE)		
653	3A		K29-6042-04	KNOB (MULTI LEVEL CONTROL)		
654	3A		K29-6043-04	KNOB (INPUT SELECTOR)		
655	3B	*	K29-6045-02	KNOB		
⚠ 657	2B	*	L07-1842-05	POWER TRANSFORMER	KP	
⚠ 657	2B	*	L07-1844-05	POWER TRANSFORMER	YM	
⚠ 657	2B	*	L07-1845-05	POWER TRANSFORMER	X	
⚠ 657	2B	*	L07-1846-05	POWER TRANSFORMER	TEG	
A	1D		N08-0128-35	BINDING POST (GND)	YMXTEG	
B	1C, 2C		N09-0333-05	TAPPING SCREW (3X12)		
C	1B, 1C		N09-3139-05	TAPTITE SCREW (3X14)		
D	1C		N29-0216-05	RIVET		
E	2D, 3D		N29-0265-15	PUSH RIVET		
F	1A		N29-0277-05	PUSH RIVET	M	
H	2B, 3B		N82-2608-46	BINDING HEAD TAPTITE SCREW		
J	1B		N86-3006-46	BINDING HEAD TAPTITE SCREW		
K	1D		N89-3008-41	BINDING HEAD TAPTITE SCREW	KP	
L	1D, 3B		N89-3008-45	BINDING HEAD TAPTITE SCREW		
M	1C, 2D		N89-3008-46	BINDING HEAD TAPTITE SCREW		
N	1C, 3C		N89-3023-46	BINDING HEAD TAPTITE SCREW		
670	1D	*	T49-0025-02	MOTOR ASSY		
671	2A		T90-0195-05	LOOP ANTENNA ASSY		
672	2A		T90-0198-05	ANTENNA ADAPTOR		
673	2A		T90-0801-05	LEAD WIRE ANTENNA		

TUNER UNIT (X05-4460-XX)

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
C1 ,2			CK73FB1H103K	CHIP C 0.010UF K	KPYMX	
C4			CE04LW1A470M	ELECTRO 47UF 10WV	KPYMX	
C5			CK73FB1H103K	CHIP C 0.010UF K	KPYMX	
C8			CK73FB1H103K	CHIP C 0.010UF K	KPYMX	
C10			CK73FB1H102K	CHIP C 1000PF K	KPYMX	
C11			CE04LW1H4R7M	ELECTRO 4.7UF 50WV	KPYMX	
C13			CE04LW1H010M	ELECTRO 1.0UF 50WV	KPYMX	
C14			CE04LW1H2R2M	ELECTRO 2.2UF 50WV	KPYMX	
C21 ,22			CQ92FM1H163J	MYLAR 0.016UF J	YMX	
C21 ,22			CQ92FM1H243J	MYLAR 0.024UF J	KP	
C23			CE04LW1H010M	ELECTRO 1.0UF 50WV	KPYMX	
C24			CE04LW1H3R3M	ELECTRO 3.3UF 50WV	KPYMX	
C25			CE04LW1V100M	ELECTRO 10UF 35WV	KPYMX	
C27			CK73FB1E473K	CHIP C 0.047UF K	KPYMX	

L: Scandinavia **K**: USA **P**: Canada **R**: Mexico
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⚠ indicates safety critical components

⁎ New Parts
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Teile ohne Parts No. werden nicht geliefert.

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
C28			CE04LW1V100M	ELECTRO 10UF 35WV	KPYMX	
C31			CE04LW1A470M	ELECTRO 47UF 10WV	KPYMX	
C32			CK73FB1H103K	CHIP C 0.010UF K	KPYMX	
C33			CC73FCH1H270J	CHIP C 27PF J	KPYMX	
C34			CC73FCH1H220J	CHIP C 22PF J	KPYMX	
C35 -38			CK73FB1H471K	CHIP C 470PF K	KPYMX	
C39			CE04LW1C470M	ELECTRO 47UF 16WV	KPYMX	
C40			CK73FB1H223K	CHIP C 0.022UF K	KPYMX	
C41			CE04LW1H010M	ELECTRO 1.0UF 50WV	KPYMX	
C42 ,43			CK73FB1H103K	CHIP C 0.010UF K	KPYMX	
C50			C91-0769-05	CERAMIC 0.010UF K	KPYMX	
C51			CE04LW1H010M	ELECTRO 1.0UF 50WV	KPYMX	
C52			CE04LW1C470M	ELECTRO 47UF 16WV	KPYMX	
C57			CC73FSL1H220J	CHIP C 22PF J	KPYMX	
C65			CE04LW1H010M	ELECTRO 1.0UF 50WV	KPYMX	
C66			CK73FB1H102K	CHIP C 1000PF K	KPYMX	
C71			CE04LW1V100M	ELECTRO 10UF 35WV	KPYMX	
C72			CE04LW1C470M	ELECTRO 47UF 16WV	KPYMX	
C103-106			CE04LW1HR47M	ELECTRO 0.47UF 50WV	KPYMX	
C107			CK73FB1E473K	CHIP C 0.047UF K	KPYMX	
C112			CC73FSL1H101J	CHIP C 100PF J	KPYMX	
C114			CK73FB1H681K	CHIP C 680PF K	KPYMX	
C115,116			CC73FSL1H101J	CHIP C 100PF J	KPYMX	
C121,122			CE04LW1C470M	ELECTRO 47UF 16WV	KPYMX	
C135,136			CQ92FM1H682J	MYLAR 6800PF J	YM	
C182			CC73FSL1H150J	CHIP C 15PF J	KPYMX	
J1			E20-0321-05	LOCK TERMINAL BOARD ANTENNA	KPYMX	
CF1 ,2			L72-0531-05	CERAMIC FILTER	KPYMX	
CF3			L72-0574-05	CERAMIC FILTER	KPYMX	
L7			L30-0467-05	AM IFT	KPYMX	
L10			L40-1091-17	SMALL FIXED INDUCTOR(1UH)	KPYMX	
L11			L40-1021-14	SMALL FIXED INDUCTOR(1.0MH,K)	KPYMX	
L12			L40-1091-17	SMALL FIXED INDUCTOR(1UH)	KPYMX	
L103			L39-1328-05	COMBINATION COIL	KPYMX	
L106			L40-1091-17	SMALL FIXED INDUCTOR(1UH)	KPYMX	
X1			L77-1122-05	CRYSTAL RESONATOR(7.2MHz)	KPYMX	
X2			L78-0295-05	RESONATOR (456kHz)	KPYMX	
⚠ R11			RS14KB3A820J	FL-PROOF RS 82 J 1W	KPYMX	
R31			RS14KB3D221J	FL-PROOF RS 220 J 2W	KPYMX	
R42			RD14NB2E101J	RD 100 J 1/4W	KPYMX	
R111			RD14NB2E470J	RD 47 J 1/4W	KPYMX	
⚠ R127,128			RD14NB2E101J	RD 100 J 1/4W	KPYMX	
W46			R92-0670-05	CHIP R 0 OHM	KPYMX	
W48			R92-0670-05	CHIP R 0 OHM	KPYMX	
S101			S62-0034-05	SLIDE SWITCH CHANNEL SPACE	YM	
D3			HZS5.1N(B2)	ZENER DIODE	KPYMX	
D3			RD5.1ES(B2)	ZENER DIODE	KPYMX	
D4			HZS3.3N(B2)	ZENER DIODE	KPYMX	
D4			RD3.3ES(B2)	ZENER DIODE	KPYMX	
D7			MA110	DIODE	KPYMX	

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No.4

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
D8			HSS104	DIODE	KPYMX	
D8			1SS133	DIODE	KPYMX	
D11			HZS8.2N(B2)	ZENER DIODE	KPYMX	
D11			RD8.2ES(B2)	ZENER DIODE	KPYMX	
D111,112			MA110	DIODE	KPYMX	
IC1			LA1831A-KEN	ANALOGUE IC	KPYMX	
IC2			LC7218	IC(PLL SYNTHESIZER)	KPYMX	
IC12			NJM4565D	IC(OP AMP X2)	KPYMX	
Q1			2SC2714(R,O)	TRANSISTOR	KPYMX	
Q2			2SC1845(F,E)	TRANSISTOR	KPYMX	
Q3			2SC1740S(Q,R)	TRANSISTOR	KPYMX	
Q3			2SC2785(F,E)	TRANSISTOR	KPYMX	
Q7			2SC2412K	TRANSISTOR	KPYMX	
⚠ Q11			2SD863(E,F)	TRANSISTOR	KPYMX	
Q102			2SA1037K	TRANSISTOR	KPYMX	
Q104			2SA1037K	TRANSISTOR	KPYMX	
Q107-110			2SC2412K	TRANSISTOR	YM	
Q109,110			2SC2412K	TRANSISTOR	KPX	
Q111			2SA1037K	TRANSISTOR	KPYMX	
DT1			W02-2512-05	FM FRONT-END ASSY	KPYMX	
TUNER UNIT (X05-4532-70)						
C1 ,2			CK73FB1H103K	CHIP C 0.010UF K	TEG	
C3			CE04LW1V100M	ELECTRO 10UF 35WV	TEG	
C4			CK73FB1E473K	CHIP C 0.047UF K	TEG	
C5			CE04LW1V100M	ELECTRO 10UF 35WV	TEG	
C6			CK73FB1E473K	CHIP C 0.047UF K	TEG	
C7			CE04LW1V100M	ELECTRO 10UF 35WV	TEG	
C8			CE04LW1H010M	ELECTRO 1.0UF 50WV	TEG	
C9			CE04LW1HR47M	ELECTRO 0.47UF 50WV	TEG	
C10			CE04LW1H2R2M	ELECTRO 2.2UF 50WV	TEG	
C11			CE04LW1HR47M	ELECTRO 0.47UF 50WV	TEG	
C12			CK73FB1E473K	CHIP C 0.047UF K	TEG	
C13			CC73FCH1H220J	CHIP C 22PF J	TEG	
C14			CE04LW1A101M	ELECTRO 100UF 10WV	TEG	
C15			CK73FB1H472K	CHIP C 4700PF K	TEG	
C16			CE04LW1H010M	ELECTRO 1.0UF 50WV	TEG	
C17 ,18			CE04LW1V100M	ELECTRO 10UF 35WV	TEG	
C19 ,20			CQ92FM1H273J	MYLAR 0.027UF J	TEG	
C21			CK73FB1H103K	CHIP C 0.010UF K	TEG	
C22			CC73FSL1H101J	CHIP C 100PF J	TEG	
C23 ,24			CE04LW1H2R2M	ELECTRO 2.2UF 50WV	TEG	
C25 ,26			CK73FB1H562K	CHIP C 5600PF K	TEG	
C27			CK73FB1E473K	CHIP C 0.047UF K	TEG	
C28			CC73FSL1H150J	CHIP C 15PF J	TEG	
C29			CE04LW1H0R1M	ELECTRO 0.1UF 50WV	TEG	
C30			CE04LW1C470M	ELECTRO 47UF 16WV	TEG	
C31			CK73FB1E473K	CHIP C 0.047UF K	TEG	
C32			CK73FB1H103K	CHIP C 0.010UF K	TEG	
C33			CC73FCH1H270J	CHIP C 27PF J	TEG	
C34			CC73FCH1H220J	CHIP C 22PF J	TEG	
C35 -38			CC73FSL1H101J	CHIP C 100PF J	TEG	
C39			CE04LW1C470M	ELECTRO 47UF 16WV	TEG	
C40			CQ92FM1H223J	MYLAR 0.022UF J	TEG	
C41			CE04HW1H2R2M	NP-ELEC 2.2UF 50WV	TEG	

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No.5

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C42 ,43			CK73FB1H103K	CHIP C 0.010UF K	TEG	
C44			CE04LW1A470M	ELECTRO 47UF 10WV	TEG	
C45			CE04LW1C470M	ELECTRO 47UF 16WV	TEG	
C46			CE04LW1H010M	ELECTRO 1.0UF 50WV	TEG	
C47			CK73FB1H103K	CHIP C 0.010UF K	TEG	
C48			CE04LW1H010M	ELECTRO 1.0UF 50WV	TEG	
C49			CK73FB1H103K	CHIP C 0.010UF K	TEG	
C50			CC73FCH1H330J	CHIP C 33PF J	TEG	
C51 -54			CK73FB1H102K	CHIP C 1000PF K	TEG	
C55			CK73FB1H222K	CHIP C 2200PF K	TEG	
C56			CC73FCH1H060D	CHIP C 6.0PF D	TEG	
C57			CC73FCH1H220J	CHIP C 22PF J	TEG	
C58			CK73FB1E473K	CHIP C 0.047UF K	TEG	
C60			CC73FSL1H101J	CHIP C 100PF J	TEG	
C61			C91-0745-05	CERAMIC 100PF K	TEG	
C62			CC45FSL1H020C	CERAMIC 2.0PF C	TEG	
J1			E20-0321-05	LOCK TERMINAL BOARD ANTENNA	TEG	
CF1 ,2			L72-0536-05	CERAMIC FILTER	TEG	
L1 ,2			L79-1219-05	LC FILTER	TEG	
L3			L30-0910-05	FM IFT	TEG	
L5			L79-0125-05	LC FILTER	TEG	
L6			L39-1328-05	COMBINATION COIL	TEG	
L7			L30-0467-05	AM IFT	TEG	
L8 ,9			L40-1091-17	SMALL FIXED INDUCTOR(1UH)	TEG	
L11			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)	TEG	
X1			L77-1122-05	CRYSTAL RESONATOR(7.2MHz)	TEG	
X2			L78-0295-05	RESONATOR (456kHz)	TEG	
R42			RD14NB2E101J	RD 100 J 1/4W	TEG	
R78			RD14NB2E470J	RD 47 J 1/4W	TEG	
R79			RS14KB3D221J	FL-PROOF RS 220 J 2W	TEG	
W101-106			R92-0670-05	CHIP R 0 OHM	TEG	
W108-112			R92-0670-05	CHIP R 0 OHM	TEG	
W114-119			R92-0670-05	CHIP R 0 OHM	TEG	
W121,122			R92-0670-05	CHIP R 0 OHM	TEG	
W201-203			R92-0679-05	CHIP R 0 OHM	TEG	
W207,208			R92-0679-05	CHIP R 0 OHM	TEG	
D1 ,2			HSS104	DIODE	TEG	
D1 ,2			1SS133	DIODE	TEG	
D3			MTZJ5.1(B)	ZENER DIODE	TEG	
D3			RD5.1ES(B2)	ZENER DIODE	TEG	
D4			MTZJ8.2(B)	ZENER DIODE	TEG	
D4			RD8.2ES(B2)	ZENER DIODE	TEG	
D5			HSS104	DIODE	TEG	
D5			1SS133	DIODE	TEG	
D6			MTZJ3.3(B)	ZENER DIODE	TEG	
D6			RD3.3ES(B2)	ZENER DIODE	TEG	
D7			MA110	DIODE	TEG	
D8			1SS268	DIODE	TEG	
D9			MA110	DIODE	TEG	
IC1			LA1836	ANALOGUE IC	TEG	
IC2			LC7218	IC(PLL SYNTHESIZER)	TEG	

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No.6

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
IC3			M5223P	IC(OP AMP X2)	TEG	
Q1			2SC2714(R,O)	TRANSISTOR	TEG	
Q2			2SC1845(F,E)	TRANSISTOR	TEG	
Q3 -5			2SC4081(R,S)	TRANSISTOR	TEG	
Q7 ,8			2SA1576(R,S)	TRANSISTOR	TEG	
Q9			2SD863(E,F)	TRANSISTOR	TEG	
Q10			2SA1576(R,S)	TRANSISTOR	TEG	
Q11 ,12			2SD1757K	TRANSISTOR	TEG	
Q16			2SC4081(R,S)	TRANSISTOR	TEG	
Q17			2SA1576(R,S)	TRANSISTOR	TEG	
Q18			2SC4081(R,S)	TRANSISTOR	TEG	
A1			W02-2509-05	FM FRONT-END ASSY	TEG	
MAIN AMP UNIT (X07-285X-XX)						
⚠ C1			C91-1488-05	MF 6800PF 250VAC		
C2			CK45FF1H103Z	CERAMIC 0.010UF Z		
C3			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C4			CE04LW1E102M	ELECTRO 1000UF 25WV		
C5			CK45FF1H223Z	CERAMIC 0.022UF Z		
⚠ C6 ,7			CK45FF1H103Z	CERAMIC 0.010UF Z		
C8 ,9			CK45FE2H103P	CERAMIC 0.010UF P		
C10 ,11			CK45FF1H103Z	CERAMIC 0.010UF Z		
C12			CE04LW1C331M	ELECTRO 330UF 16WV		
C13			CK45FB1H102K	CERAMIC 1000PF K		
C14			CK45FF1H473Z	CERAMIC 0.047UF Z	KP	
C15 ,16			C90-3536-05	ELECTRO 6800UF 71WV		
C21 ,22			CE04LW1V102M	ELECTRO 1000UF 35WV		
C23 ,24			CE04LW1C470M	ELECTRO 47UF 16WV		
C25 ,26			CK45FB1H102K	CERAMIC 1000PF K		
C27 ,28			CE04LW1C470M	ELECTRO 47UF 16WV		
C29			CE04LW1A470M	ELECTRO 47UF 10WV		
C30			CE04LW1J221M	ELECTRO 220UF 63WV		
C31			CE04LW1A470M	ELECTRO 47UF 10WV		
C32			CE04LW1V100M	ELECTRO 10UF 35WV		
C33			CE04LW1C470M	ELECTRO 47UF 16WV		
C34			CC45FSL1H331J	CERAMIC 330PF J	TEG	
C35			CE04LW1C330M	ELECTRO 33UF 16WV		
C36			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C37			CE04LW1V100M	ELECTRO 10UF 35WV		
C38			CK45FF1H103Z	CERAMIC 0.010UF Z	TEG	
C39			CC45FSL1H101J	CERAMIC 100PF J	TEG	
C40			CC45FSL1H101J	CERAMIC 100PF J	TEG	
C41 ,42			CE04LW1A470M	ELECTRO 47UF 10WV		
C51 ,52			CC45FSL1H030C	CERAMIC 3.0PF C		
C53 ,54			CC45FSL1H151J	CERAMIC 150PF J	KPYMX	
C53 ,54			CK45FB1H391K	CERAMIC 390PF K	TEG	
C55 ,56			CE04LW1A101M	ELECTRO 100UF 10WV		
C57 ,58			CC45FSL1H050C	CERAMIC 5.0PF C	KPYMX	
C59 ,60			CC45FSL1H180J	CERAMIC 18PF J		
C61 ,62			CC45FSL1H470J	CERAMIC 47PF J		
C63 ,64			CK45FB1H102K	CERAMIC 1000PF K	TEG	
C63 ,64			CK45FB1H681K	CERAMIC 680PF K	KPYMX	
C65 ,66			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C67 ,68			CE04LW1A101M	ELECTRO 100UF 10WV		

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No.7

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C71 ,72			CC45FSL1H030C	CERAMIC 3.0PF C		
C73 ,74			CC45FSL1H151J	CERAMIC 150PF J		
C75 ,76			CE04LW1A101M	ELECTRO 100UF 10WV		
C77 ,78			CC45FSL1H050C	CERAMIC 5.0PF C		
C79 ,80			CC45FSL1H180J	CERAMIC 18PF J		
C81 ,82			CC45FSL1H470J	CERAMIC 47PF J		
C83 ,84			CK45FB1H681K	CERAMIC 680PF K		
C85 ,86			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C87 ,88			CE04LW2A100M	ELECTRO 10UF 100WV		
C99			CE04LW1A101M	ELECTRO 100UF 10WV		
C100			CE04LW1C101M	ELECTRO 100UF 16WV		
C103-106			CK45FF1H103Z	CERAMIC 0.010UF Z		
C107-110			CF92FV1H224J	MF-C 0.22UF J	TEG	
C109,110			CQ93FMG1H104J	MYLAR 0.10UF J	KPYMX	
C113-116			CK45FF1H103Z	CERAMIC 0.010UF Z		
C117-120			CF92FV1H224J	MF-C 0.22UF J	TEG	
C118,119			CQ93FMG1H104J	MYLAR 0.10UF J	KPYMX	
C121-124			CK45FF1H472Z	CERAMIC 4700PF Z	TEG	
C125-128			CK45FB1H102K	CERAMIC 1000PF K	KPYMX	
C125,126			CK45FB1H332K	CERAMIC 3300PF K	TEG	
C127,128			CK45FB1H471K	CERAMIC 470PF K	TEG	
C129,130			CK45FB1H332K	CERAMIC 3300PF K	TEG	
C131			CK45FB1H391K	CERAMIC 390PF K	TEG	
C133			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C134			CE04LW0J221M	ELECTRO 220UF 6.3WV		
C135			CQ93FMG1H473J	MYLAR 0.047UF J		
⚠ J1			E03-0148-05	AC OUTLET	KP	
⚠ J1			E03-0149-05	AC OUTLET	YMEG	
⚠ J1			E03-0310-05	AC OUTLET	T	
J4			E70-0018-05	SCREW TERMINAL BOARD FRONT SP	KPYMX	
J4			E70-0019-05	SCREW TERMINAL BOARD FRONT SP	TEG	
J5			E70-0046-05	LOCK TERMINAL BOARD C.SP/R.SP		
687	1D,2C		F20-1426-05	INSULATING BOARD		
⚠ F1			F05-3121-05	FUSE (SEMKO) (250V T3.15AL)	XTEG	
⚠ F1			F05-7026-05	FUSE (UL) (250V 7A)	KP	
⚠ F1 ,2			F05-3121-05	FUSE (SEMKO) (250V T3.15AL)	YM	
⚠ F2			F05-2525-05	FUSE (SEMKO) (250V T2.5AL)	EG	
⚠ F3 ,4			F04-1026-05	FUSE (UL) (250V 1A)	KP	
⚠ F3 ,4			F06-1022-05	FUSE (SEMKO) (250V T1AL)	YMXTEG	
⚠ F5 ,6			F05-1037-05	FUSE (250V 10A)	KP	
⚠ F5 ,6			F05-6321-05	FUSE (SEMKO) (250V T6.3A)	YMXTEG	
CN2 -13			J13-0075-05	FUSE CLIP	YMEG	
CN2 ,3			J13-0041-05	FUSE CLIP	KP	
CN2 ,3			J13-0075-05	FUSE CLIP	XT	
CN6 -13			J13-0075-05	FUSE CLIP	XT	
CN6 -9			J13-0075-05	FUSE CLIP	KP	
CN10-13			J13-0041-05	FUSE CLIP	KP	
J6 -8			J11-0098-05	WIRE CLAMPER		
L1 -4			L39-0085-05	PHASE COMPENSATION COIL		
⚠ T1			L07-1876-05	POWER TRANSFORMER	KP	
⚠ T1			L07-1877-05	POWER TRANSFORMER	YM	
⚠ T1			L07-1878-05	POWER TRANSFORMER	X	
⚠ T1		*	L07-1879-05	POWER TRANSFORMER	TEG	

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No.8

	Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti- nation 仕向	Re- marks 備考
	G	1D,2C		N35-3010-46	BINDING HEAD MACHINE SCREW		
	CP1 -3			R90-0840-05	RD 0.22 5W		
	CP4			R90-0888-05	MULTIPLE RESISTOR		
⚠	R1			R92-1769-05	CARBON 3.3M J 1/2W	KP	
⚠	R8			RD14NB2E470J	RD 47 J 1/4W		
	R9			RS14KB3A103J	FL-PROOF RS 10K J 1W		
⚠	R10 -12			RD14NB2E4R7J	RD 4.7 J 1/4W		
⚠	R30			RD14NB2E682J	RD 6.8K J 1/4W		
	R33			RD14NB2E101J	RD 100 J 1/4W		
⚠	R41			RS14KB3A680J	FL-PROOF RS 68 J 1W		
⚠	R43			RS14KB3A680J	FL-PROOF RS 68 J 1W		
	R45			RS14KB3A103J	FL-PROOF RS 10K J 1W		
	R98			RD14NB2E332J	RD 3.3K J 1/4W		
⚠	R105-108			RD14NB2E271J	RD 270 J 1/4W		
	R109,110		*	RD14NB2E272J	RD 2.7K J 1/4W		
⚠	R117-120			RD14NB2E271J	RD 270 J 1/4W		
	R121,122		*	RD14NB2E272J	RD 2.7K J 1/4W		
	R125-128			RS14KB3D4R7J	FL-PROOF RS 4.7 J 2W		
	R137-140			RD14NB2E100J	RD 10 J 1/4W		
	R150-152			RS14KB3D271J	FL-PROOF RS 270 J 2W	KPYMX	
	R150-153			RS14KB3D271J	FL-PROOF RS 270 J 2W	TEG	
⚠	R154			RS14KB3D101J	FL-PROOF RS 100 J 2W		
⚠	R167			RD14NB2E470J	RD 47 J 1/4W		
⚠	R177			RS14KB3A330J	FL-PROOF RS 33 J 1W		
	VR1 -4			R12-1617-05	TRIMMING POT.(2.2K)		
⚠	K1			S76-0002-05	MAGNETIC RELAY		
⚠	K2 -4			S51-2078-05	MAGNETIC RELAY		
⚠	K2 -4			S51-2092-05	MAGNETIC RELAY		
⚠	S1			S31-3010-05	SLIDE SWITCH AC VOLTAGE SEL	YM	
⚠	S2			S31-2136-05	SLIDE SWITCH IMPEDANCE SEL		
⚠	D1 -4			S5688B	DIODE		
⚠	D1 -4			1SR139-100	DIODE		
	D5 ,6			HSS104A	DIODE		
	D5 ,6			1SS131	DIODE		
	D7			HSS104	DIODE		
	D7			1SS133	DIODE		
⚠	D8			D5FB20-4002-L20	DIODE		
	D9 ,10			HSS104A	DIODE		
	D9 ,10			1SS131	DIODE		
	D11 ,12			S5688B	DIODE		
	D11 ,12			1SR139-100	DIODE		
	D13			RD5.6ES(B2)	ZENER DIODE		
	D13			UZ-5.6BSB	ZENER DIODE		
	D14			HSS104	DIODE		
	D14			1SS133	DIODE		
	D15			HSS104A	DIODE		
	D15			1SS131	DIODE		
	D16			RD4.7ES(B)	ZENER DIODE		
	D16			UZ-4.7BS	ZENER DIODE		
	D17			RD2.7ES(B2)	ZENER DIODE		
	D17			UZ-2.7BSB	ZENER DIODE		
	D18 ,19			RD6.8ES(B2)	ZENER DIODE		
	D18 ,19		*	UZ-6.8BSB	ZENER DIODE		
	D20			RD3.9ES(B2)	ZENER DIODE		

L: Scandinavia **K**: USA **P**: Canada **R**: Mexico
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⚠ indicates safety critical components.

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No.9

	Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti- nation 仕向	Re- marks 備考
	D20		*	UZ-3.9BSB	ZENER DIODE		
⚠	D21 -24			S5688B	DIODE		
⚠	D21 -24			1SR139-100	DIODE		
	D25			RD8.2ES(B2)	ZENER DIODE		
	D25			UZ-8.2BSB	ZENER DIODE		
	D26			RD6.2ES(B2)	ZENER DIODE		
	D26			UZ-6.2BSB	ZENER DIODE		
	D27 ,28			RD16ES(B2)	ZENER DIODE		
	D27 ,28			UZ-16BSB	ZENER DIODE		
	D29			RD6.2ES(B2)	ZENER DIODE		
	D29			UZ-6.2BSB	ZENER DIODE		
	D30			RD2.7ES(B2)	ZENER DIODE		
	D30			UZ-2.7BSB	ZENER DIODE		
	D31 -33			HSS104	DIODE		
	D31 -33			1SS133	DIODE		
	D42 -44			HSS104	DIODE		
	D42 -44			1SS133	DIODE		
	D51 ,52			HSS104	DIODE		
	D51 ,52			1SS133	DIODE		
	D71 -75			HSS104A	DIODE		
	D71 -75			1SS131	DIODE		
	D76			RD5.6ES(B2)	ZENER DIODE		
	D76			UZ-5.6BSB	ZENER DIODE		
	D81			HSS104	DIODE		
	D81			1SS133	DIODE		
	D82			RD5.6ES(B2)	ZENER DIODE		
	D82			UZ-5.6BSB	ZENER DIODE		
	D83			HSS104	DIODE		
	D83			1SS133	DIODE		
	D91 -96			HSS104	DIODE		
	D91 -96			1SS133	DIODE		
	IC1 ,2			UPC2581V	IC SET		
	Q1			2SC2003(L,K)	TRANSISTOR		
	Q2			2SA992(F,E)	TRANSISTOR		
⚠	Q3 ,4			2SD2012	TRANSISTOR		
⚠	Q3 ,4			2SD2061	TRANSISTOR		
⚠	Q3 ,4			2SD2374	TRANSISTOR		
⚠	Q5			2SC1740S(Q,R)	TRANSISTOR		
⚠	Q5			2SC2785(F,E)	TRANSISTOR		
⚠	Q6			2SA1175(F,E)	TRANSISTOR		
⚠	Q6			2SA933S(Q,R)	TRANSISTOR		
	Q7			2SC1740S(Q,R)	TRANSISTOR		
	Q7			2SC2785(F,E)	TRANSISTOR		
	Q8			2SA1175(F,E)	TRANSISTOR		
	Q8			2SA933S(Q,R)	TRANSISTOR		
⚠	Q9			2SC3940A(R,S)	TRANSISTOR		
⚠	Q10			2SA1534A(R,S)	TRANSISTOR		
	Q11 -14			2SC1845(F,E)	TRANSISTOR		
	Q21 -23			2SC1740S(Q,R)	TRANSISTOR		
	Q21 -23			2SC2785(F,E)	TRANSISTOR		
	Q27 ,28			2SC1845(F,E)	TRANSISTOR		
	Q29			2SA992(F,E)	TRANSISTOR		
	Q31 -34			DTC124ES	DIGITAL TRANSISTOR		
	Q31 -34			UN4212	TRANSISTOR		
	Q41			2SB1370	TRANSISTOR		

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※ New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Telle ohne Parts No. werden nicht gellefert.

No.10

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
Q41			2SB1375	TRANSISTOR		
Q42			2SD2012	TRANSISTOR		
Q42			2SD2061	TRANSISTOR		
Q42			2SD2374	TRANSISTOR		
Q45 ,46			2SC1740S(Q,R)	TRANSISTOR		
Q45 ,46			2SC2785(F,E)	TRANSISTOR		
Q47 ,48			2SA1175(F,E)	TRANSISTOR		
Q47 ,48			2SA933S(Q,R)	TRANSISTOR		
Q49 ,50			2SC1740S(Q,R)	TRANSISTOR		
Q49 ,50			2SC2785(F,E)	TRANSISTOR		
Q51 ,52			2SC1845(F,E)	TRANSISTOR		
Q62 ,63			2SC1740S(Q,R)	TRANSISTOR		
Q62 ,63			2SC2785(F,E)	TRANSISTOR		
⚠ Q65			2SD2012	TRANSISTOR		
⚠ Q65			2SD2061	TRANSISTOR		
⚠ Q65			2SD2374	TRANSISTOR		
⚠ Q101,102			2SD2222BT	TRANSISTOR		
⚠ Q103,104			2SB1470BT	TRANSISTOR		
Q105,106			2SC4137F19(V,W)	TRANSISTOR		
⚠ Q107,			2SD2222BT	TRANSISTOR		
⚠ Q108			2SD2390LB	TRANSISTOR		
⚠ Q109			2SB1470BT	TRANSISTOR		
⚠ Q110			2SB1560LB	TRANSISTOR		
Q111,112			2SC4137F19(V,W)	TRANSISTOR		
AUDIO UNIT (X09-408X-XX)						
C1 -14			C91-0749-05	CERAMIC 220PF K	TEG	
C3 ,4			C91-0749-05	CERAMIC 220PF K	KPYMX	
C7 ,8			C91-0749-05	CERAMIC 220PF K	KPYMX	
C11 ,12			C91-0749-05	CERAMIC 220PF K	KPYMX	
C15 ,16			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C17 ,18			C91-0729-05	CERAMIC 22PF J		
C19 ,20			CE04LW1C220M	ELECTRO 22UF 16WV		
C21			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C22			CK45FB1H681K	CERAMIC 680PF K		
C23 ,24			CE04LW1V100M	ELECTRO 10UF 35WV		
C25 ,26			CC45FSL1H221J	CERAMIC 220PF J		
C27 ,28			CE04LW1A101M	ELECTRO 100UF 10WV		
C29 ,30			C91-0757-05	CERAMIC 1000PF K		
C31 ,32			CQ93FMG1H123J	MYLAR 0.012UF J		
C33 ,34			CQ93FMG1H332J	MYLAR 3300PF J		
C35 ,36			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C37 ,38			CE04LW1E470M	ELECTRO 47UF 25WV		
C39 -42			CK45FF1H103Z	CERAMIC 0.010UF Z		
C43 ,44			CC45FSL1H101J	CERAMIC 100PF J		
C45 ,46			CK45FB1H471K	CERAMIC 470PF K		
C47 ,48			C91-0735-05	CERAMIC 39PF J		
C61 ,62			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C63 ,64			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C65 -68			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C71 ,72			CC45FSL1H101J	CERAMIC 100PF J		
C73 ,74			CC45FSL1H220J	CERAMIC 22PF J		
C77 ,78			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C79 ,80			CE04LW1HR47M	ELECTRO 0.47UF 50WV		
C81 ,82			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C85 ,86			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		

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No.11

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
C87 ,88			CF92FV1H184J	MF-C 0.18UF J		
C89 ,90			CC45FSL1H101J	CERAMIC 100PF J		
C91 -94			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C95 ,96			CE04LW1V100M	ELECTRO 10UF 35WV		
C97 ,98			CK45FF1H103Z	CERAMIC 0.010UF Z		
C99 ,100			CC45FSL1H101J	CERAMIC 100PF J		
C101			CK45FB1H471K	CERAMIC 470PF K		
C102			CK45FF1H103Z	CERAMIC 0.010UF Z		
C103			CE04HW1E4R7M	NP-ELEC 4.7UF 25WV		
C105,106			CK45FF1H103Z	CERAMIC 0.010UF Z		
C107			CK45FB1H471K	CERAMIC 470PF K		
C108			CK45FF1H103Z	CERAMIC 0.010UF Z		
C110,111			CE04LW1C221M	ELECTRO 220UF 16WV		
C112,113			CC45FSL1H101J	CERAMIC 100PF J		
C131,132			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C133,134			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C151-154			C91-0749-05	CERAMIC 220PF K	TEG	
C151,152			C91-0749-05	CERAMIC 220PF K	KPYMX	
C155			CK45FF1H103Z	CERAMIC 0.010UF Z		
C156			CK45FB1H221K	CERAMIC 220PF K	TEG	
C157,158			CC45FSL1H470J	CERAMIC 47PF J		
C159-161			CE04LW1V100M	ELECTRO 10UF 35WV		
C162-164			CK45FF1H103Z	CERAMIC 0.010UF Z		
C165,166			CK45FB1H221K	CERAMIC 220PF K		
C167,168			CK45FF1H103Z	CERAMIC 0.010UF Z		
C169			CE04HW1E100M	NP-ELEC 10UF 25WV		
C170,171			CK45FF1H103Z	CERAMIC 0.010UF Z		
C172			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C173,174			CE04LW1A101M	ELECTRO 100UF 10WV		
C201			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C202-204			CF92FV1H224J	MF-C 0.22UF J		
C205			CF92FV1H684J	MF-C 0.68UF J		
C209			CE04LW1A221M	ELECTRO 220UF 10WV		
C210			CQ93FMG1H473J	MYLAR 0.047UF J		
C211			CQ93FMG1H562J	MYLAR 5600PF J		
C214			CF92FV1H224J	MF-C 0.22UF J		
C215			CE04LW1V100M	ELECTRO 10UF 35WV		
C216			CE04LW1C101M	ELECTRO 100UF 16WV		
C217,218			CE04LW1V100M	ELECTRO 10UF 35WV		
C220			CE04LW1C220M	ELECTRO 22UF 16WV		
C221			CQ93FMG1H472J	MYLAR 4700PF J		
C222			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C223			CF92FV1H224J	MF-C 0.22UF J		
C224-227			CQ93FMG1H104J	MYLAR 0.10UF J		
C228,229			CQ93FMG1H223J	MYLAR 0.022UF J		
C230			CK45FB1H681K	CERAMIC 680PF K		
C231			CQ93FMG1H473J	MYLAR 0.047UF J		
C232,233			CQ93FMG1H104J	MYLAR 0.10UF J		
C235,236			CE04LW1V100M	ELECTRO 10UF 35WV		
C237,238			CQ93FMG1H104J	MYLAR 0.10UF J		
C239			CQ93FMG1H473J	MYLAR 0.047UF J		
C240			CK45FB1H681K	CERAMIC 680PF K		
C241			CE04GW1E220M	LL-ELEC 22UF 25WV		
C242			CE04LW1V100M	ELECTRO 10UF 35WV		
C251-254			CE04LW1V100M	ELECTRO 10UF 35WV		

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No.12

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
C271,272			CC45FSL1H101J	CERAMIC 100PF J		
C273			CK45FB1H471K	CERAMIC 470PF K		
C274,275			CK45FF1H103Z	CERAMIC 0.010UF Z		
C281,282			CE04LW1V100M	ELECTRO 10UF 35WV		
C301			CQ93FMG1H103J	MYLAR 0.010UF J		
C302			CQ93FMG1H123J	MYLAR 0.012UF J		
C303			CK45FB1H821K	CERAMIC 820PF K		
C304,305			CQ93FMG1H472J	MYLAR 4700PF J		
C306			CC45FSL1H271J	CERAMIC 270PF J		
C307			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C310			CE04LW1C101M	ELECTRO 100UF 16WV		
C311,312			CQ93FMG1H104J	MYLAR 0.10UF J		
C313,314			CE04LW1A101M	ELECTRO 100UF 10WV		
C315,316			CQ93FMG1H104J	MYLAR 0.10UF J		
C317			CE04LW1A101M	ELECTRO 100UF 10WV		
C318			CQ93FMG1H392J	MYLAR 3900PF J		
C319			CE04LW1A101M	ELECTRO 100UF 10WV		
C320			CK45FF1H103Z	CERAMIC 0.010UF Z		
C321,322			CC45FSL1H101J	CERAMIC 100PF J		
C323,324			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C325,326			CQ93FMG1H562J	MYLAR 5600PF J		
C327,328			CC45FSL1H181J	CERAMIC 180PF J		
C329,330			CQ93FMG1H472J	MYLAR 4700PF J		
C331-333			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C336			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C351,352			CE04LW1HR22M	ELECTRO 0.22UF 50WV		
C353			CE04LW1V100M	ELECTRO 10UF 35WV		
C354			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C355			CC45FSL1H101J	CERAMIC 100PF J		
C356			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C357,358			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C359			CE04LW1C101M	ELECTRO 100UF 16WV		
C360,361			CC45FSL1H101J	CERAMIC 100PF J		
C362			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C364			CE04LW1V220M	ELECTRO 22UF 35WV		
C381			CC45FSL1H220J	CERAMIC 22PF J		
C382,383			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C385,386			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C501			CE04LW1H2R2M	ELECTRO 2.2UF 50WV	TEG	
C502			CC45FSL1H331J	CERAMIC 330PF J	TEG	
C503			CK45FB1H561K	CERAMIC 560PF K	TEG	
C504			CK45FF1H103Z	CERAMIC 0.010UF Z	TEG	
C505			CE04LW1V100M	ELECTRO 10UF 35WV	TEG	
C506			CC45FCH1H470J	CERAMIC 47PF J	TEG	
C507			CC45FCH1H220J	CERAMIC 22PF J	TEG	
C508			CK45FF1H103Z	CERAMIC 0.010UF Z	TEG	
C509			CE04LW1V100M	ELECTRO 10UF 35WV	TEG	
C510			CK45FF1H103Z	CERAMIC 0.010UF Z	TEG	
C511			CE04LW1V470M	ELECTRO 47UF 35WV	TEG	
C512			CK45FB1H102K	CERAMIC 1000PF K	TEG	
C513			CC45FSL1H101J	CERAMIC 100PF J	TEG	
J1 ,2			E63-0070-15	PHONO JACK(16P)VIDEO/TP/CD/PHO		J
J3			E63-0046-15	PHONO JACK(4P)VIDEO 2		
J4			E63-0116-05	PHONO JACK(1P)S.W OUT		

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No.13

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Destination 仕向	Remarks 備考
J5			E63-0069-15	PHONO JACK(4P)VIDEO 1/VIDEO 2		
J6		*	E63-0130-05	PHONO JACK(1P)VIDEO MONITR OUT		J
J7			E11-0188-05	MINIATURE PHONE JACK(2P)S.CONT		
688	2D		J19-3331-05	UNIT HOLDER		
L1 ,2			L40-1091-17	SMALL FIXED INDUCTOR(1UH)		
L501-503			L40-1091-17	SMALL FIXED INDUCTOR(1UH)	TEG	
L504,505			L40-1001-17	SMALL FIXED INDUCTOR(10UH,K)	TEG	
X1			L78-0601-05	RESONATOR (7.16MHz)		
X501			L77-2002-05	CRYSTAL RESONATOR(4.332MHz)	TEG	
X502			L78-0244-05	RESONATOR (4.000M)	TEG	
⚠ R108,109			RD14NB2E470J	RD 47 J 1/4W		
⚠ R177,178			RD14NB2E220J	RD 22 J 1/4W		
R206			RN14BK2C1003F	RN 100K F 1/6W		
⚠ R226			RD14NB2E101J	RD 100 J 1/4W		
⚠ R309			RD14NB2E101J	RD 100 J 1/4W		
⚠ R370			RD14NB2E101J	RD 100 J 1/4W		
⚠ R510			RS14KB3D331J	FL-PROOF RS 330 J 2W	TEG	
D1 ,2			HSS104	DIODE		
D1 ,2			1SS133	DIODE		
D3			RD5.1ES(B2)	ZENER DIODE		
D3			UZ-5.1BSB	ZENER DIODE		
D51 -57			HSS104	DIODE		
D51 -57			1SS133	DIODE		
D61 -68			HSS104	DIODE		
D61 -68			1SS133	DIODE		
D501			RD5.1ES(B2)	ZENER DIODE	TEG	
D501			UZ-5.1BSB	ZENER DIODE	TEG	
IC1			NJU7313AL	ANALOGUE IC		
IC2			NJU7312AL	ANALOGUE IC		
IC3 ,4			NJM4580D-D	IC(OP AMP X2)		
IC5 ,6			LC7536R	ANALOGUE IC		
IC7 -10			NJM4565L	IC(OP AMP X2)		
IC11			NJM2177AFB3	ANALOGUE IC		
IC12			NJU7311AL	ANALOGUE IC		
IC13			YM7128B	IC(DIGITAL SURROUND)		
IC14			NE571N	IC(COMPANDOR)		
IC15			NJM2279D	IC(VIDEO IC)		
IC16			MC14576CP	ANALOGUE IC		
IC17			UPC78L05J	IC(VOLTAGE REGULATOR/ +5V)		
IC18			NJM4565L	IC(OP AMP X2)		
IC19			NJM072BL	IC(OP AMP)		
IC19		*	NJM2082L	IC(OP AMP)		
IC20-23			NJM4565L	IC(OP AMP X2)		
IC501			SAA6579	ANALOGUE IC	TEG	
IC502			LC6543H-4D68	MI-COM IC	TEG	
Q1 -4			2SC2878(B)	TRANSISTOR		
Q5 ,6			2SC1845(F,E)	TRANSISTOR		
Q7 ,8			2SK246(Y,GR)	FET		
Q9			2SA1175(F,E)	TRANSISTOR		
Q9			2SA933S(Q,R)	TRANSISTOR		
Q10 ,11			2SC1845(F,E)	TRANSISTOR		
Q21 -23			2SC2878(B)	TRANSISTOR		

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No.14

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
Q24			2SA1175(F,E)	TRANSISTOR		
Q24			2SA933S(Q,R)	TRANSISTOR		
Q25			2SC1740S(Q,R)	TRANSISTOR		
Q25			2SC2785(F,E)	TRANSISTOR		

DISPLAY UNIT (X14-397X-XX)

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
D29			B30-2461-05	LED(RED)		
C1			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C2			CE04LW1H010M	ELECTRO 1.0UF 50WV		
C3			C90-1827-05	ELECTRO 0.047UF 5.5WV		
C4			CE04LW1A101M	ELECTRO 100UF 10WV		
C5 ,6			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C7			CE04LW1C330M	ELECTRO 33UF 16WV		
C10 -14			C91-0769-05	CERAMIC 0.010UF K		
C15 ,16			CK45FF1H103Z	CERAMIC 0.010UF Z		
C17			C91-0769-05	CERAMIC 0.010UF K		
C18			C91-0085-05	CERAMIC 0.022UF N		
C19 ,20			C90-3228-05	ELECTRO 47UF 16WV		
C21 ,22			C91-0749-05	CERAMIC 220PF K		
C23 ,24			C90-3231-05	ELECTRO 3.3UF 25WV		
C25 ,26			C91-0737-05	CERAMIC 47PF J		
C27			C91-0754-05	CERAMIC 560PF J		
C28			CK45FB1H561K	CERAMIC 560PF K		
C29 ,30			CE04LW1V100M	ELECTRO 10UF 35WV		
C31			C90-3224-05	ELECTRO 4.7UF 16WV		
C32			CE04LW1V4R7M	ELECTRO 4.7UF 35WV		
C33 ,34			CQ93FMG1H393J	MYLAR 0.039UF J		
C35 ,36			CQ93FMG1H563J	MYLAR 0.056UF J		
C41			CK45FF1H103Z	CERAMIC 0.010UF Z	KPYMX	
C41			CQ93FMG1H223J	MYLAR 0.022UF J	TEG	
C42 ,43			CK45FB1H561K	CERAMIC 560PF K	TEG	
C44			CK45FF1H103Z	CERAMIC 0.010UF Z		
C45			CQ93FMG1H223J	MYLAR 0.022UF J		
C46			CK45FF1H103Z	CERAMIC 0.010UF Z		
J1			E11-0190-05	PHONE JACK PHONES		
			L78-0267-05	RESONATOR (4.194MHz)		
X1			R90-0856-05	MULTI-COMP 10KX5 J 1/6W		
			RD14NB2E221J	RD 220 J 1/4W		
CP2			RD14NB2E100J	RD 10 J 1/4W		
R19 ,20			RD14NB2E121J	RD 120 J 1/4W		
R22			RS14KB3D561J	FL-PROOF RS 560 J 2W		
⚠ R84 ,85						
R112,113			R31-0036-05	VARIABLE RESISTOR		
VR1 ,2			S40-1064-05	PUSH SWITCH		
			S40-1064-05	PUSH SWITCH AF/PTY/DISPLAY		
S1 -15			S40-1064-05	PUSH SWITCH		
S16 -18			S40-1064-05	PUSH SWITCH	TEG	
S19 -32						
S34 -36			T99-0554-05	ROTARY ENCODER VOLUME COTROL		
			T99-0547-05	SPEED DETECTOR INPUT/MULTI		
S37						
S38 ,39			RD8.2ES(B2)	ZENER DIODE		
			UZ-8.2BSB	ZENER DIODE		
D1						
D1						

L: Scandinavia **K**: USA **P**: Canada **R**: Mexico
Y: PX (Far East, Hawaii) **T**: England **E**: Europe **G**: Germany
Y: AAFES (Europe) **X**: Australia **M**: Other Areas

⚠ indicates safety critical components.

* New Parts
Parts without Parts No. are not supplied.
Les articles non mentionnes dans le Parts No. ne sont pas fournis.
Teile ohne Parts No. werden nicht geliefert.

No.15

Ref. No. 参照番号	Address 位置	New Parts 新	Parts No. 部品番号	Description 部品名／規格	Desti-nation 仕向	Re-marks 備考
D2			RD2.7ES(B2)	ZENER DIODE		
D2			UZ-2.7BSB	ZENER DIODE		
D3 -14			HSS104	DIODE		
D3 -14			1SS133	DIODE		
D15 -22			HSS104A	DIODE	KP	
D15 -22			1SS131	DIODE	KP	
D15 -23			HSS104A	DIODE	YMTEG	
D15 -23			1SS131	DIODE	YMTEG	
D15 -24			HSS104A	DIODE	X	
D15 -24			1SS131	DIODE	X	
D25			HSS104A	DIODE	TEG	
D25			1SS131	DIODE	TEG	
D28			HSS104A	DIODE	YM	
D28			1SS131	DIODE	YM	
D34 -36			HSS104	DIODE		
D34 -36			1SS133	DIODE		
ED1			11-MT-99GK	INDICATOR TUBE		
IC1			UPD78044AGF-071	MI-COM IC	KPYMX	
IC1		*	UPD78045AGF-013	MI-COM IC	TEG	
IC2			S-80740AL	IC(VOLTAGE DETECTOR)		
IC3			NJM4580D-D	IC(OP AMP X2)		
Q1 ,2			2SC1740S(Q,R)	TRANSISTOR		
Q1 ,2			2SC2785(F,E)	TRANSISTOR		
Q3			2SA1175(F,E)	TRANSISTOR	YM	
Q3			2SA933S(Q,R)	TRANSISTOR	YM	
Q4 ,5			2SC1740S(Q,R)	TRANSISTOR		
Q4 ,5			2SC2785(F,E)	TRANSISTOR		
A1			W02-1153-05	ELECTRIC CIRCUIT MODULE		
A1			W02-1174-05	ELECTRIC CIRCUIT MODULE		

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⚠ indicates safety critical components

KR-V7070

SPECIFICATIONS

Audio section

Rated power output at the STEREO operation

> 100 watts per channel minimum RMS, both channels driven at 8 Ω, from 20 Hz to 20,000 Hz with no more than 0.06 % total harmonic distortions. (FTC)

Power output at the Surround operation
Front

> 100 watts per channel minimum RMS, both channels driven at 8 Ω, 1 kHz with no more than 0.7 % total harmonic distortions. (FTC)

Center

> 100 watts per channel minimum RMS, both channels driven at 8 Ω, 1 kHz with no more than 0.7 % total harmonic distortions. (FTC)

Rear

> 28 watts per channel minimum RMS, both channels driven at 8 Ω, 1 kHz with no more than 0.7 % total harmonic distortions. (FTC)

Total harmonic distortion (1 kHz, 8 Ω)	0.01 % at 50 W
Signal to noise ratio (IHF A)	
PHONO (MM)	75 dB
CD	98 dB
Input sensitivity / impedance	
PHONO (MM)	2.5 mV /47 kΩ
CD, TAPE, VIDEO	200 mV /47 kΩ
Output level / impedance	
S.W. OUT	2.0 V / 600 Ω
Tone controls	
BASS	± 10 dB (at 100 Hz)
TREBLE	± 10 dB (at 10 kHz)
N.B. circuit	+ 9 dB (70 Hz)

Video section

VIDEO inputs / outputs (Composite)	1 Vp-p / 75 Ω

FM Tuner section

Tuning frequency range	87.5 MHz~108 MHz
Usable sensitivity (IHF)	13.2 dBf (1.2 µV at 75 Ω)
50 dB quieting sensitivity	
STEREO	41.2 dBf (32 µV at 75 Ω)
Total harmonic distortion at 1 kHz	
MONO	0.6 %
STEREO	0.7 %
Signal to noise ratio at 65 dBf (IHF)	
MONO	75 dB
STEREO	68 dB
Selectivity (IHF ± 400 kHz)	50 dB
Stereo separation (IHF at 1 kHz)	40 dB
Frequency response	30 Hz ~ 15 kHz, + 0.5 dB, – 3.0 dB

AM Tuner section

Tuning frequency range	530 kHz ~ 1,700 kHz
Usable sensitivity	12 µV / (500 µV / m)
Total harmonic distortion	0.7 %
Signal to noise ratio	48 dB
Selectivity	30 dB

General

Power consumption	3.5 A
AC outlet	
SWITCHED	2: (total 150 W, 1.25 A max.)
Dimensions	W: 440 mm (17-5/16")
	H: 144 mm (5-11/16")
	D: 347 mm (13-11/16")
Weight (net)	9.8 kg (21.6 lb)

Note:

Component and circuitry are subject to modification to insure best operation under differing local conditions. This manual is based on the U.S.A. (K) standard, and provides information on regional circuit modification through use of alternate schematic diagrams, and information on regional component variations through use of parts list.

KENWOOD follows a policy of continuous advancements in development.
For this reason specifications may be changed without notice.

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